

**REPORT INTO BUILDING SAFETY EVALUATION
PROCESSES IN THE CENTRAL BUSINESS DISTRICT
FOLLOWING THE 4 SEPTEMBER 2010 EARTHQUAKE**

CONTENTS

1. Introduction/Context – 4 September 2010 Response
 - 1.1 Background
 - 1.2 Declaration of State of Emergency – 4 September Earthquake and Immediate Response
 - Immediate Events Following the 4 September Earthquake
 - Implementation of State of Emergency
2. The NZSEE Building Safety Evaluation Guidelines
3. Implementation of the NZSEE Guidelines After 4 September 2010
 - 3.1 Overall Damage Survey
 - 3.2 The Rapid Assessment Process
 - Level 1 Rapid Assessments
 - i) Level 1 Rapid Assessment Teams
 - ii) Level 1 Rapid Assessment Process
 - Level 2 Rapid Assessments
 - i) Determining Priority Buildings for a Level 2 Rapid Assessment
 - 3.3 Arrangements Made Independently by Building Owners
 - 3.4 Other Building Evaluation Team Responsibilities
 - 3.5 Information About Building Access
 - Information Included in the Placards
 - i) Green Placard
 - ii) Yellow Placard
 - iii) Red Placard
 - Information Pamphlet / Council Website
 - Council Media Releases
 - Email Alert
4. Processes After the State of Emergency
 - 4.1 Building Evaluation Transition Team
 - Purpose
 - Structure
 - Activities

- i) Audit of Unsafe and Restricted Entry Buildings
- ii) Responding to Customer Service Requests

4.2 Building Recovery Office

- Original Purpose
 - Purpose from 28 November 2010
 - Structure from 28 November 2010
 - Activities from 28 November 2010
- i) Case Management
 - ii) Re-assessment Process
 - iii) Customer Service Requests
 - iv) Precinct Meetings
 - v) Cordon Management

5. Process to Update a Building's Status

5.1 During State of Emergency

5.2 Post State of Emergency

6. The Building Cordon System

6.1 During State of Emergency

6.2 Removal of Central Business District Cordon

6.3 Post State of Emergency

- Process for Establishing New Cordons
- Process to Remove or Alter Cordons
- BETT Review of Cordons

7. 26 December 2010 Aftershock

7.1 Immediate Response

7.2 Decision Regarding State of Emergency

7.3 Building Assessment Process

- Access to Cashel Mall and Cathedral Square
- Information About Building Assessments

8. Powers Available to the Council and Other Authorities to Deal With Buildings in Response to the Earthquakes

8.1 Powers Exercised During a State of Emergency

8.2 Building Act 2004 and Other Statutory Powers for Dealing with Buildings

- Introduction
- Building Act 2004 Powers Prior to 16 September 2010
 - i) Sections 71 – 73 – Land Subject to Natural Hazards
 - ii) Section 112 – Alterations to Buildings
 - iii) Section 121 – Dangerous Buildings
 - iv) Section 122 – Earthquake-prone Buildings
 - v) Sections 124 – 128 – Powers
 - vi) Section 129 – Immediate Danger
 - vii) Sections 222 – 226 – Inspections
- Building Act 2004 Powers as Amended by the Canterbury Earthquake (Building Act) Order 2010
- Changes to Compliance Documents

8.3 Powers Under the Canterbury Earthquake Response Act 2011

- Section 38 – Works
- Section 39 – Demolition and Other Works
 - i) Health and Safety
 - ii) Notice
- Sections 40, 41 and Subpart 5 – Compensation
- Section 44 – Temporary Buildings
- Section 46 – Closing and Stopping Roads
- Section 48 – Directions to Take or Stop Action
- Section 51 – Requiring Structural Survey
- Section 52 – Adjoining or Adjacent Owners
- Section 53 – Acquiring and Disposing of Property
- Section 54 – Notice of Intention to Take Land
- Section 58 – Offering Back Land
- Section 83 – Liability
 - i) General
 - ii) Demolition

Appendices

- 1 Timeline of Earthquake Related Events
- 2 Civil Defence Emergency Framework
- 3 How the NZSEE Guidelines Evolved/Previous Use
- 4 Christchurch Eq. RAPID Assessment Form – LEVEL 1
- 5 Rapid Assessment Placards

- 6 Extract from Building Safety Evaluation Information Recording Workbook and Database
- 7 Christchurch Eq RAPID Assessment Form – LEVEL 2
- 8 Christchurch City Council Pamphlet – Definitions of the Red, Yellow or Green Placards on Homes and Buildings
- 9 Christchurch City Council Media Release – 9.00pm 4th September 2010
- 10 Christchurch City Council Media Release – 5.45pm 6th September 2010
- 11 Christchurch City Council Media Release – 8.00pm 8th September 2010
- 12 Christchurch City Council Media Release – 12pm 16th September 2010
- 13 Stronger Christchurch eNewsletter 6th October 2010
- 14 BETT Structure Chart
- 15 Christchurch City Council Enforcement Team Notices Coversheet
- 16 Building Evaluation Transition (B.E.T.) Team Site Visit Process
- 17 Central City Precinct Assessment Map
- 18 BRO Case Management Process
- 19 BRO Property Damage Expired Notices – Re Inspection Process
- 20 Central City Revitalisation Post Earthquake Precinct Meetings Slideshow – Manchester Precinct, 14 December 2010
- 21 Statement by Chartered Professional Engineer in Respect of Building (“CPEng Certification Form”)
- 22 Christchurch City Council – Resumption of Occupancy and Use of Earthquake Damaged Buildings
- 23 Building Assessment – Request for Removal of Placard / Change of Status Red to Green
- 24 Building Assessment – Request for Placard from Yellow to Green
- 25 Guidance for Monitoring and Reviewing Barricades
- 26 Procedure for Permitting the Removal of Temporary Fencing / Barricades from Around Damaged Buildings
- 27 Earthquake Damage Report – Cathedral Square, 29 December 2010
- 28 Christchurch City Council Media Release – 9.30pm 26 December 2010
- 29 Christchurch City Council Media Release – 27 December 2010
- 30 Canterbury Earthquake (Building Act) Order 2010
- 31 Extracts from Legislation
- 32 Protocol for Assessing Buildings Damaged in the Earthquake

GLOSSARY

Building Safety Evaluation Manager

Manages the Building Evaluation Team during the state of emergency, also called the Rescue Manager in the Christchurch City Civil Defence Emergency Management Arrangements.

Building Evaluation Team

Responsible for the rapid assessment of buildings and other dangerous building issues during the state of emergency.

Customer Service Request

A request for assistance or other notification received by the Council from a member of the public or other organisation, either by email or through the Council call centre.

Emergency Operations Centre

The Local Emergency Operations Centre for Christchurch which operated from the Christchurch Art Gallery.

Placard

The green, yellow or red notices issued for buildings during the rapid assessment process carried out in the state of emergency.

Rapid assessment

The process for the assessment of buildings during a state of emergency, set out in the August 2009 "Building Safety Evaluation During a State of Emergency Guidelines for Territorial Authorities" prepared by the New Zealand Society for Earthquake Engineering.

LIST OF ABBREVIATIONS

BETT	Building Evaluation Transition Team (post state of emergency)
BRO	Building Recovery Office (post state of emergency)
CBD	Central business district
CDEMA	Civil Defence Emergency Management Act 2002
CDEMG	Civil Defence Emergency Management Group
CERA	Canterbury Earthquake Recovery Authority
CPEng	Chartered Professional Engineer New Zealand
EOC	Emergency Operations Centre
IPENZ	Institute of Professional Engineers New Zealand
NZSEE	New Zealand Society for Earthquake Engineering
NZSEE Guidelines	The August 2009 “Building Safety Evaluation During a State of Emergency Guidelines for Territorial Authorities” prepared by the New Zealand Society for Earthquake Engineering
SOE	State of Emergency

1. INTRODUCTION/CONTEXT- 4 SEPTEMBER 2010 RESPONSE

1.1 Background

This report provides information about the building safety evaluation process carried out by the Christchurch City Council ("Council") during the state of emergency following the 4 September 2010 earthquake and thereafter following the uplifting of the state of emergency, including the 26th December 2010 aftershock. It deals with events and processes up until the 22 February 2011 earthquake.

The information provided in this report has been collated from a variety of sources including interviews with various Council staff members and other personnel involved in the emergency response. The information relating to dates, times and strengths of aftershocks has been collated from the Geonet website.

While the Council has endeavoured to ensure the information included in this report is as accurate as possible, time has elapsed since the events described in the record and recollections will differ. This report of necessity covers events only in general terms. It is also important to note that while the emergency response procedures described in this report were followed in most instances, there were inevitably variations in such procedures.

This report only covers the building evaluation response during and after the state of emergency following the 4 September 2010 earthquake. The Council had many other roles in the earthquake response, including for example water and sewer repairs, responding to welfare needs, operating welfare centres, repairing damaged roads and carrying out its general obligations as an employer and building owner. In addition, the processes discussed in this report were carried out against a background of disruptions caused by ongoing and significant aftershocks.

Again this report provides the Council's perspective of the emergency response. However there were many other organisations that had a role in the response, for example USAR, the Fire Service, the Police, the Ministry of Health and Environment Canterbury.

A timeline of the events referred to in this report is attached as **Appendix 1**.

1.2 Declaration of State of Emergency – 4 September Earthquake and Immediate Response

Immediate Events Following the 4 September 2010 Earthquake

An earthquake with a magnitude of 7.1 struck at 4.35am on Saturday 4 September 2010.

At 4.51am, the Local Controller on duty (Michael Aitken)¹ contacted the EOC Manager (Murray Sinclair) to ask whether the EOC should be opened. Mr Sinclair advised the Local Controller that the EOC should be opened.

¹ The Council's Controllers are rostered on a monthly basis.

The earthquake occurred when the Council was in the process of moving from its Tuam Street building to its new Civic Offices in Hereford Street. The Council's civil defence management support equipment relating to building evaluation was packed at the Council's Tuam Street building ready to be moved to the new building.

The Local Controller and the EOC Manager met at the Tuam Street building with a view to using the building as an EOC. However, the Tuam Street building had suffered some damage and was deemed to not be operational. The Local Controller decided that it would be preferable to move to the new Hereford Street Building.

At 5.10am, the EOC Manager and the Local Controller reconvened at the Hereford Street building. The Building Evaluation Manager (John Buchan) arrived at 5.30am, after an initial reconnaissance of building damage, as discussed in Section 3.1. The Mayor also arrived at 5.30am. Other Civil Defence staff also began arriving at the Hereford Street building with a view to setting up the EOC. However the Hereford Street building had also sustained minor damage and the building's emergency power generator was not operating.

At 6.10am, a decision was made to move to the Christchurch Art Gallery, and security personnel were contacted to gain access to the building. Civil Defence pre-planning had determined that the Art Gallery would be a suitable second location for an EOC. Staff also began recovering Civil Defence equipment from the Tuam Street offices, and transferring it to the Art Gallery. The education room at the Art Gallery was set up as the EOC under the CIMS model.²

A state of local emergency was declared at 9.33am on 4 September 2010 under section 68 of the CDEMA. The state of local emergency was extended on several occasions and eventually lapsed at midday on 16th September 2010.

Implementation of State of Emergency

Upon the declaration of the state of emergency on 4 September 2010, the relevant provisions of the CDEMA became activated, along with the Canterbury Civil Defence Emergency Management Group Plan and the Christchurch City Local Civil Defence Emergency Management Arrangements. An outline of the Civil Defence Emergency framework is contained in **Appendix 2**.

2. THE NZSEE BUILDING SAFETY EVALUATION GUIDELINES

The building safety evaluation processes following the 4 September 2010 earthquake drew on the second edition of the Building Safety Evaluation during a State of Emergency Guidelines for Territorial Authorities (NZSEE Guidelines).

An overview of the NZSEE Guidelines is included as **Appendix 3**. The overview outlines how the Guidelines evolved and the essential features. Council building officers had received training on the application of the NZSEE Guidelines prior to the earthquake on 4 September 2010.

² The CIMS model is outlined in **Appendix 2**.

3. IMPLEMENTATION OF THE NZSEE GUIDELINES AFTER 4 SEPTEMBER 2010

3.1 Overall Damage Survey

The NZSEE Guidelines state that the first step in the building evaluation process is an “Overall Damage Survey”. The Guidelines provide that this survey should take place within hours after an event and should be conducted by emergency services, territorial authority staff and Civil Defence volunteers.³

The Guidelines anticipate that the Overall Damage Survey will not involve any entry of premises and no formal records will be kept. The emphasis is to be on determining the extent of the damage, identifying the areas where there has been significant impact, identifying rescue tasks, determining the areas of priority for rapid assessment and estimating the need for resources.⁴

As a first step in the Overall Damage Survey, shortly after the earthquake on 4th September 2010, the Council's designated Building Safety Evaluation Manager drove from his house in Somerfield to the nearby Princess Margaret Hospital. His purpose was to review the condition of the hospital buildings as a general guide to the strength of the earthquake and the possible damage that it may have caused. The Building Safety Evaluation Manager found that all of the lights were on at the hospital and the building did not appear to have suffered any major structural damage.

The Building Safety Evaluation Manager then proceeded to the Council's Civic Offices on Hereford Street, reviewing the extent of building damage along his route. The Building Safety Evaluation Manager also noted that contractors were already clearing away fallen bricks and setting up barriers around some damaged buildings in the CBD.

The Building Safety Evaluation Manager arrived at the Council's new Civic Offices on Hereford Street at approximately 5.30am. Staff from the Council's Building Inspections team and engineers volunteering their services had also started arriving at the Civic Offices (and at the Art Gallery when operations moved there).

The building inspectors and engineers were arranged into informal teams to begin general damage assessments in the CBD and along the city's main arterial routes (Colombo Street, Papanui Road, Riccarton Road, Ferry Road and Lincoln Road).

The information gathered from these initial assessments was transferred to whiteboards in the EOC, and an overview of the level of damage caused by the earthquake was gradually pieced together. A media release at 6.00am on 5th September 2010 stated that more than 500 buildings in the city had been found to be damaged; and more than 90 of those buildings were in the central city area.

³ New Zealand Society for Earthquake Engineering, *Building Safety Evaluation During a State of Emergency Guidelines for Territorial Authorities*, August 2009, page 9.

⁴ New Zealand Society for Earthquake Engineering, *Building Safety Evaluation During a State of Emergency Guidelines for Territorial Authorities*, August 2009, page 9.

The information collected from this Overall Damage Survey was then used as a guide for directing resources for the rapid assessment of buildings, as discussed below.

3.2 The Rapid Assessment Process

Level 1 Rapid Assessments

The initial preparations for the rapid assessment process began on 4th September 2010.

Level 1 Rapid Assessment Teams

In accordance with the NZSEE Guidelines, teams were formed to carry out the Level 1 rapid assessments. The teams included at least one building inspector, one CPEng engineer and one civil defence rescue team member⁵.

The building inspectors included Christchurch City Council employees and employees from other territorial authorities (arranged with the support of Local Government New Zealand).

The engineers were volunteers from Christchurch and other centres. Some engineers had volunteered their services of their own accord and others were arranged through IPENZ.

All engineers were required to sign the “Memorandum of Understanding for Engineers Volunteering to Assist Territorial Authorities in a State of Emergency” in the form set out in Appendix F of the NZSEE Guidelines.

Level 1 Rapid Assessment Process

On the evening of 4th September 2010 the area within the CBD cordon (discussed in section 6.1) was divided into 25 grids. The area included in each grid was decided by staff from the Christchurch City Council, the Department of Building and Housing and an external consulting firm specialising in civil defence emergency management.

The information considered when defining the boundaries for each grid included –

1. the details of building damage obtained from the Overall Damage Survey;
2. the number of buildings included in the grid;
3. the type of buildings within the grid (for example whether any buildings were multi-storey); and
4. the use of particular buildings within the grid (for example whether any high density residential buildings were included).

The boundaries of each grid were marked on a laminated map and each was labelled with a code letter. Level 1 rapid assessment teams were assigned to each grid.

⁵ The role of the civil defence rescue team members was to ensure the safety of the other team members.

At 9.30am on 5th September 2010 the rapid assessment teams were given a powerpoint briefing on the NZSEE Guidelines and the process that would be followed.⁶ The teams then began the Level 1 assessments.

In accordance with the NZSEE Guidelines, the rapid assessment teams conducted only an external assessment of the buildings. The teams could also only assess the parts of buildings that they could get to safely.

The rapid assessment teams filled out a “Christchurch Eq. RAPID Assessment Form – LEVEL 1” for each building assessed (“the Level 1 Form”). A template Level 1 Form is attached as **Appendix 4** of this report.

All buildings were classified as either Inspected (Green), Restricted Use (Yellow) or Unsafe (Red), in accordance with the NZSEE Guidelines.⁷ A corresponding Green, Yellow or Red placard was affixed to the building. Examples of these placards are attached at **Appendix 5**.

The Level 1 Forms were returned to the EOC. Members of the Building Evaluation Team would check the forms to ensure they were completed and signed. All buildings classified as “Unsafe” were marked on a laminated map, to provide an overview of the scale and location of damage.

The details from Level 1 Forms (and later Level 2 Forms) were entered into a “Building Safety Evaluation” spreadsheet. An extract showing the column headings for this spreadsheet is attached as **Appendix 6** of this report. The Council understands that this spreadsheet was developed by a contractor working for the Department of Building and Housing.

It would take between two and six hours to complete the Level 1 assessments for all buildings within a grid.

By the evening of 5th September 2010 the majority of the Level 1 assessments in the CBD had been completed. Engineers from the National USAR Task Force Team then conducted a brief review of the placards issued in the CBD. The engineers walked around the CBD to obtain an overview of the assessments that had been made. Some placards were changed as a result of this review, but most classifications were considered to be appropriate.

All Level 1 rapid assessments in the CBD were completed by midday on 6th September 2010.

Level 1 assessments of buildings on the city’s arterial routes (Riccarton Road, Papanui Road, Colombo St, Ferry Road and Lincoln Road) were also carried out on 6th September 2010, following the same process as described above.

⁶ It is understood that a copy of the presentation is held by Dave Brunsdon/Kestrel Group Limited.

⁷ New Zealand Society for Earthquake Engineering, *Building Safety Evaluation During a State of Emergency Guidelines for Territorial Authorities*, August 2009, page 10.

Level 2 Rapid Assessments

The Level 2 rapid assessments in the CBD began on the morning of 6th September 2010. A Level 2 rapid assessment team consisted of the same members as a Level 1 rapid assessment team and one additional CPEng engineer.

A further briefing was given to the Level 2 rapid assessment teams on the morning of 6th September 2010 and the teams then began the Level 2 assessments. The Level 2 assessments began on buildings identified as being high priority, in accordance with the process explained below.

Not all buildings that had a Level 1 assessment also had a Level 2 assessment. As discussed below, the NZSEE Guidelines state that a Level 2 assessment is only intended for certain buildings. As discussed in Section 3.3, in some cases building owners/managers would engage their own engineers to carry out an assessment comparable to a Level 2, rather than the Building Evaluation Team completing the assessment.

In contrast to a Level 1 assessment, a Level 2 rapid assessment team is required to review both the exterior and interior of the subject building. In many cases, this would require the rapid assessment team to contact the owner of the building prior to visiting the site, to arrange entry.

The rapid assessment teams completed a “Christchurch Eq RAPID Assessment Form – LEVEL 2” for all buildings that received a Level 2 assessment (“the Level 2 Form”). The template of the Level Two Form is attached as **Appendix 7** of this report.

All buildings that received a Level 2 assessment were classified in accordance with the “Usability Category” table on page 2 of the Level 2 Form, as follows:

- Inspected (Green) -
 - G1 - occupiable, no immediate further investigation required; or
 - G2 - occupiable, repairs required.
- Restricted Use (Yellow) –
 - Y1 - short term entry; or
 - Y2 - no entry to parts until repaired or demolished.
- Unsafe (Red) –
 - R1 - significant damage: repairs, strengthening possible; or
 - R2 - severe damage: demolition likely; or
 - R3 - at risk from adjacent premises or from ground failure.

If the Level 2 assessment resulted in a different classification to the Level 1 assessment, a new placard would be affixed to the building.

Level 2 assessments continued until the end of the state of emergency on 16 September 2010, although most had been completed by 12 September 2010. By 16th September 2010 approximately 850 Level 1 and 2 building assessments had been carried out in the CBD.

Determining Priority Buildings for a Level 2 Rapid Assessment

The NZSEE Guidelines do not envisage that Level 2 assessments will be carried out on all buildings that have received a Level 1 assessment. The Guidelines anticipate that Level 2 assessments will be performed on:

- All critical facility buildings; and
- Large, typically multi-storey buildings; and
- Any other buildings where the Level 1 rapid assessment identifies the need for further and more specific inspection.⁸

As a result, it was necessary to review the information recorded in the Level 1 Forms to determine which buildings required a Level 2 assessment, and to determine the order of priority for performing these. Staff from the Council's Building Consents Team who were engaged in the EOC Building Evaluation Team were tasked to conduct this review.

As a first step, all buildings in the CBD and along arterial routes in the following categories which had received a Level 1 assessment were identified:

- All buildings which had received a red or yellow placard in the Level 1 assessment.
- All green placarded buildings with 4 or more levels.
- All green placarded buildings with high occupancy levels.
- All green placarded buildings where the Level 1 rapid assessment form recommended that a Level 2 assessment be carried out.

These buildings were then allocated to one of the following categories of priority:

- VH = very high
- MH = medium high
- M = medium
- L = low.

⁸ New Zealand Society for Earthquake Engineering, Building Safety Evaluation During a State of Emergency Guidelines for Territorial Authorities, August 2009, page 12.

Buildings with yellow placards were generally allocated to the M category and buildings with red placards were generally allocated to the L category. The reasoning was that the features rendering these buildings unsafe had already been identified as requiring action.

As a general rule, the green placarded buildings that had been identified for a Level 2 assessment in the first step were allocated to either the VH or MH category. Green placarded buildings were allocated to the VH category if there was some urgency due to the building being critical to the reduction of the CBD cordon or if the building was important for another reason (for example, it was to be used for welfare purposes, or for other critical purposes). Other green placarded buildings were allocated to the MH category.

However, factors particular to certain buildings may have resulted in a different category of priority being allocated.

The priority task list of buildings was updated on an ongoing basis as further information was received from rapid assessment forms. This task list also included other tasks relating to dangerous buildings that the Building Evaluation Team was required to respond to, as discussed below. The buildings were allocated to the level 2 assessment teams to be dealt with in the order of priority set out in the task list.

3.3 Arrangements Made Independently by Building Owners

During the state of emergency a number of building owners also engaged their own engineers to carry out rapid assessments of their buildings. This often occurred where a building owner wished to have the Level 1 rapid assessment classification of a building changed, as discussed in Section 5.1.

In some cases, the engineers acting for these building owners contacted the EOC, obtained and completed Level 2 forms for the buildings and issued the relevant placards. Alternatively, the engineers would provide the assessment information to the EOC and the Building Evaluation Team would arrange for an appropriate placard to be issued.

Some engineers working privately for building owners also adapted the rapid assessment forms in the NZSEE Guidelines for their own use.

All engineers were asked to advise the Building Evaluation Team of the details of assessments carried out, but there was no obligation for the engineers to do this.

3.4 Other Building Evaluation Team Responsibilities

In addition to managing the rapid assessment process, the Building Evaluation Team was also responsible for other dangerous building issues, for example:

- Responding to reports received from parties such as the Police, Fulton Hogan, the Fire Service and USAR that a building required re-assessment as a result of damage caused by demolition or repair work on neighbouring buildings, or as a result of any significant aftershocks.
- Responding to reports from members of the public advising of dangerous buildings that needed to be checked.

- Issues identified by the rapid assessment teams while they were carrying out rapid assessments on other buildings.

These issues were added to the Building Evaluation Team's priority task list as necessary and the building evaluation inspection teams would investigate as required. During the state of emergency the Council received approximately 3,200 telephone calls, emails and notifications from other bodies (such as the Fire Service) of potentially dangerous buildings or dangerous building related issues (both residential and commercial).

3.5 Information About Building Access

Information about the rapid assessment process, the meaning of the assessment categories and the need for building owners to obtain their own engineering assessments was included on the placards issued, on the Council's website and in media releases, pamphlets and email alerts prepared by the Council, as discussed below.

Information Included in the Placards

The placards that were issued during the state of emergency include guidance for building owners about the assessment that has been carried out and the effect of the classification of the building. The following extracts are taken from the placards:

Green Placard – “Inspected – No Restriction on Use or Occupancy”

“This building has received a brief inspection only. While no apparent structural or other safety hazards have been found, a more comprehensive inspection of the exterior and interior may reveal safety hazards...

Owners are encouraged to obtain a detailed structural engineering assessment of the building as soon as possible. Report any unsafe conditions to the Territorial Authority. Subsequent events causing damage may change this assessment. Re-inspection may be required. Secondary damage (partitions, windows, fittings and furnishings) may be hazardous. Electrical and mechanical equipment, gas connections, water supplies and sanitary facilities have not been inspected”.

Yellow Placard – “Restricted Use – No Entry Except on Essential Business”

“This building has been damaged and its structural safety is questionable. Enter only at own risk. Subsequent aftershocks or other events may result in increased damage and danger, changing this assessment. Re-inspection may be required.”

The placard also includes a check list for the options available for use of the building, to be completed by the rapid assessment team.

Red Placard – “Unsafe – Do Not Enter or Occupy”

The sub heading for the red placard includes the statement “this placard is not a demolition order”. The placard also states:

“WARNING: this building has been seriously damaged and is unsafe. Do not enter. Entry may result in death or injury...Enter only with specific written authorisation from Territorial Authority acting under the authority of the Civil Defence Emergency Management Controller”.

Information Pamphlet / Council Website

The Council prepared a pamphlet explaining the meaning of the different placards. This pamphlet is attached as **Appendix 8** of this report. The pamphlet was available on the Council's website and in Council Service Centres and Libraries.

Council Media Releases

The Council issued a number of media releases both during and after the state of emergency in relation to earthquake response and recovery matters. Many of these media releases provided advice to building owners about how to deal with their damaged buildings. The main themes from these media releases are discussed below.

The Council's media releases in relation to the rapid assessment process began on 4 September 2010, at 9.00pm. The first media release about the process, which is attached as **Appendix 9**, advised that building inspections would begin in the central city on 5th September 2010. The media release states:

“Tomorrow morning, Sunday 5 September, 20 to 25 teams from the Council's Building Evaluation Team will be inspecting all buildings within the area currently cordoned off. The teams will be placing red placards on buildings that are considered unsafe and cannot be entered, yellow placards on buildings with restricted use and green placards on buildings with no restriction on use”.

A more detailed media release about building access and the meaning of the green, yellow and red placards was made on 6th September 2010, at 5.45pm. This media release is attached as **Appendix 10**. The media release includes the following comments:

“...if a building has a Green, Yellow or Red placard:

- *Green placard – the building has had an initial assessment and there is no restriction on use or occupancy. Follow the instructions on the placard. Please note that in some circumstances Council will conduct an additional more detailed evaluation to verify the green placard status.*
- *Yellow placard – building has been inspected. Follow the instructions on the placard. A second more detailed inspection may allow the placard to be upgraded to green status. These second evaluations will be carried out by Council on a priority basis, however, building owners should engage a structural engineer which may allow earlier occupation.*
- *Red placard – building has had an initial assessment and is not ok to use. A second evaluation will be carried out by Council on a priority basis. To clear the building for use the building owner needs to*

engage a structural engineer and arrange for their engineer to provide a report declaring the building is safe for purpose to Council via the Emergency Operations Centre...

- *If building does not have a Green, Yellow or Red placard:*
- *It is the building owner's or occupier's responsibility to check the structural integrity of any building particularly those open to the public. Check the building by observation from the outside initially. If there is no visible damage then you may check the inside of the building at your own risk. If there is visible damage or you have concerns then the building owner should engage a structural engineer and arrange for their engineer to provide a report declaring the building is safe for intended purpose to Council via the Emergency Operations Centre.*

All structural engineer reports commissioned privately by building owners need to be forwarded to Council via the Emergency Operations Centre".

Other media releases on 6th and 7th September 2010 included a brief summary of the meaning of the placards, as follows:

"A green placard means the building is considered safe for its intended use...

A yellow placard means the building has limited access, as noted on the placard, and further structural assessment is needed by the owner's consultants...

A red placard means the building is considered unsafe and further structural assessment is needed".

A media release issued on 8th September 2010 at 8pm (attached as **Appendix 11**), suggests that there had been some confusion around the interpretation of the placards. In an effort to deal with this confusion, the media release contained a detailed description of the meaning of the placards, as follows:

"a red placard means that people should not enter or occupy the building because it has been determined as unsafe. It is not a demolition order. Nor does it mean the adjacent building is 'red'.

Buildings with a red placard require a further detailed structural assessment by a building professional engaged by the owner. That assessment must then be discussed with the Christchurch City Council's building evaluation and inspection team to determine options.

There have also been reports that some people have misinterpreted a red placard to mean that they have 10 minutes to collect their belongings. This is not the case. Buildings with red placards are unsafe and should not be entered.

A yellow placard means the building has limited access, as noted on the placard, and further structural assessment is needed by the owner's consultants.

The meaning of green placards, and buildings that have not yet received placards, has also been clarified. A green placard means there has been a brief inspection only. While no apparent structural or other safety hazards have been found, a more comprehensive inspection of the exterior and interior may reveal structural or safety hazards.

It is the building owner's or occupier's responsibility to get further independent advice regarding the safety of any building if necessary. This is also the case for buildings with no placards."

On 16th September 2010 a media release was made to advise on the status of the placards when the state of emergency ceased. This media release is attached as **Appendix 12**. The media release states:

"Can I remove the placard now that the state of emergency has been lifted?

Buildings that have been assessed for earthquake damage have placards on them that follow a colour-coded 'traffic light' system, based on international engineering best practice and adapted for New Zealand conditions.

The placards should not be removed when the states of emergency are lifted, because they indicate that a building has had an initial assessment...

These building safety evaluation placards were developed by the New Zealand Society for Earthquake Engineering with support from the Department of Building and Housing and the Ministry of Civil Defence and Emergency Management.

The placards are temporary notices that will be replaced by notices issued by the Council under Sections 124 and 125 of the Building Act 2004".

Email Alert

Following the 4th September 2010 earthquake the Council developed a "Stronger Christchurch" eNewsletter to advise of earthquake recovery activities and related matters. This eNewsletter was available to all members of the public who registered to receive it.

The 6th October 2010 eNewsletter included the following paragraphs in relation to red and yellow placards:

"Does your business have a red or yellow placard on it?

Please remember if you have a commercial building that has either a red or yellow sticker on it – these placards are still in effect. This means that the buildings are not suitable in their current earthquake damaged state for their intended use.

- *Red placards mean that the building is unsafe for any occupation, so do not enter.*
- *Yellow placards mean that there is limited access to the building and building owners and occupiers should follow the restrictions on the use as detailed on the placard.*

Owners of buildings with red or yellow placards should be obtaining a structural engineering assessment of their building and should contact the Council's Building Recovery Office before doing any work on the building.

The Council is continuing to review the status of commercial buildings where we learn of further damage that may put public safety at risk. If you have any questions about your placard please contact the Council on 941 8999."

A copy of this Stronger Christchurch eNewsletter is attached as **Appendix 13**.

4. PROCESSES AFTER THE STATE OF EMERGENCY

The NZSEE Guidelines anticipate that the rapid assessment placards placed on buildings during the state of emergency will be replaced with Building Act 2004 notices, where further building work is required to reduce or mitigate any danger posed. The Guidelines state that the Building Act notices should be issued before the emergency declaration is lifted.

However, on average, the Council's Enforcement Team in business as usual deals with approximately 65 dangerous building complaints a year, and issues only 2 -5 Building Act notices in relation to dangerous buildings. In contrast, approximately 1,230 residential and commercial buildings across the city received red or yellow placards during the state of emergency in September.⁹ It was not possible to deal with this volume of buildings under the Council's business as usual processes. In addition, there was no precedent for managing the transition from the state of emergency for the scale of building damage that had occurred in Christchurch.

As discussed in section 8.2¹⁰, changes were implemented by the Canterbury Earthquake (Building Act) Order 2010 to assist the Council to deal with placarded buildings on the transition from the state of emergency. In particular, the Order in Council provided that the red and yellow placards warning people to keep out of buildings, or restricting their entry to buildings, continued in force for a further 60 days.

The Council also needed to develop its own operational policies and procedures for the management of these buildings.

⁹ *Approximately 80 of these placards related to sanitary/health issues rather than building safety.*

¹⁰ *Under the heading "Building Act 2004 Powers as Amended by the Canterbury Earthquake (Building Act) Order 2010".*

The Council established two new teams with responsibility for the management of damaged buildings following the state of emergency – the Building Evaluation Transition Team (“BETT”) and the Building Recovery Office (“BRO”). The following paragraphs explain the functions of these teams. As there was no existing precedent that could be adopted, the processes followed by these teams for the management of damaged buildings evolved as work continued.

4.1 Building Evaluation Transition Team

Purpose

The BETT was established on 20 September 2010 and existed until the end of November 2010. The purpose of the BETT was to preserve public safety and to facilitate a return to normal operations following the earthquake by:

- Continued identification of unsafe buildings.
- Reviewing and updating information held in the Council's property files as engineering reports were received and/or additional damage was noted following any aftershocks.
- Reviewing cordon placement.

The BETT was tasked with managing damaged buildings in both the CBD and originally in residential areas. However, with the Earthquake Commission involved in dealing with assessments and repairs of residential buildings, the main focus was on commercial buildings.

Structure

The BETT consisted of a Project Manager, an Inspection Team Coordinator, an Administration Support Coordinator and an Engineering Support Coordinator. CPEng structural engineers working on contract and building inspectors from the Council and other territorial authorities were also engaged as required.

The BETT reported to the Council's Inspections and Enforcement Unit Manager and ultimately to the Regulation and Democracy Services Manager.

An organisation chart is attached at **Appendix 14**.

Activities

The main functions carried out by the BETT were:

- Receiving and processing independent engineering assessments and detailed engineering reports from building owners.
- Monitoring cordons erected around buildings/structures identified as dangerous during the state of emergency, with a view to reducing cordons to limit inconvenience to residents and to enable a return to business as usual for retailers and business owners, provided public safety was not jeopardised.
- Monitoring access to cordons.
- Responding to Customer Service Requests to investigate the safety of buildings - both commercial and residential.

- Re-inspecting commercial buildings issued with a red or yellow placard during the state of emergency.
- Identifying properties that were dangerous or insanitary under the Building Act 2004 and arranging for the appropriate Building Act notice to be issued.

The process followed in relation to the receipt of independent engineering assessments is discussed in section 5.2. The processes for monitoring and removing cordons are discussed in section 6.3.

Audit of Unsafe and Restricted Entry Buildings

Between 5th and 20th October 2010, BETT field inspection teams completed an audit of commercial buildings in the CBD and on arterial routes that had received a red or yellow placard during the state of emergency. A total of 580 buildings were re-inspected. The re-inspection process was timely, due to the significant aftershock on the night of 4th October 2010 (the 8th largest aftershock since the 4th September 2010 earthquake, at that time).

The purpose of the audit was to determine the current state of the buildings, the extent of any remedial action taken and whether any further action was required to remedy the danger posed by the building. All buildings that were deemed to still be in a dangerous or insanitary state were referred to the Council's Enforcement Team to be issued with an appropriate Building Act 2004 notice as discussed below.

The BETT audit process involved a visual review of the buildings by field inspection teams and peer reviews of any engineering evaluations that had been supplied by the building owners, where applicable. BETT field inspection teams included a CpEng engineer or two territorial authority building inspectors. However, all field inspection teams were working closely together and the building inspectors could request assistance from the BETT engineers as they considered appropriate.

The field inspection teams re-assessed the buildings in a similar manner to the NZSEE rapid assessment process. The teams would review the interior of the building if they were able to gain access, or would rely on the information available from an external review. A rapid assessment form would be completed as appropriate, along with a standard BETT coversheet. An example of the cover sheet template is attached as **Appendix 15**. This cover sheet evolved over time and was later used by the BRO, in a modified form.

Buildings issued with a green placard were not included in the audit process as such buildings had not been identified as unsafe during the rapid assessment inspections. The green placards advised owners they should obtain further structural assessments of their buildings. If an owner or any member of the public later made a complaint or inquiry to the Council about a building, this Customer Services Request would be dealt with by the applicable Council team at the time of the request, regardless of whether the building had received a green, yellow or red placard.

All buildings that the BETT identified as dangerous received a Building Act 2004 notice and a cover letter. There were several different versions of notices and letter depending on the circumstances of the particular building. See section 8.2 for further details about the types of Building Act notices that could be issued. The Building Act notices specified that the damage identified during the Level 1 and 2 rapid assessments was the danger to be reduced/removed.

The compliance date included in the Building Act notices was based on the nature of the risk the building posed. A 10 day resolution period was considered reasonable for some buildings that were impeding traffic flows or public access and where some initial steps could be taken to sufficiently remove the danger and improve traffic flow and access. The majority of the building owners received notices requiring compliance by 31 January 2011.

Responding to Customer Service Requests

The BETT Field Inspections Co-ordinator was also tasked with reviewing and prioritising all Customer Services Requests received by the Council concerning potentially dangerous buildings. The majority of these requests related to buildings in residential areas.

The Field Inspections Co-ordinator would review the information in the Customer Services Request and would contact the requester where necessary. A BETT field inspection team would be sent out to review the building if required and would follow the inspection process set out in **Appendix 16** of this report.¹¹

In some cases (for example, reports of damaged chimneys) the requester would be referred to the Earthquake Commission as the appropriate body to deal with the issue.

The Council received approximately 1,670 notifications of potentially dangerous buildings or related dangerous building issues between the end of the state of emergency and 22 February 2011.

4.2 Building Recovery Office

Original Purpose

The BRO was established on 13 September 2010. The initial purpose of the BRO was to provide a single point of contact at the Council for building and home owners to:

- Register the need for demolition work, major repairs or rebuilds;
- Quickly obtain any consents needed to proceed;
- Obtain architectural and engineering advice;
- Obtain property records; and
- Determine eligibility for financial assistance from the Mayoral fund.

The BRO also responded to queries about the building evaluation process, the meaning of the rapid assessment placards and Building Act notices, and how the rapid assessment placards and Building Act notices could be changed.

By the end of November 2010 this initial work of the BRO was beginning to wind down. The activities of the BETT had also finished by the end of November. However, a need remained to continue managing dangerous buildings in Christchurch, and to encourage building owners to deal with ongoing issues with these buildings.

¹¹ Note that the part of the process set out in Action 6 refers to a section 124(1)(c) Building Act notice being issued if a building was not dangerous but required repairs. However, if a building was assessed as not dangerous the Council could not take enforcement steps under section 124. The intention was that the Council would issue a letter to those building owners stating that repair work or other steps may be required.

A new BRO team was therefore established to replace the original BRO functions and the BETT. A new team leader was appointed on 28 November 2010.

Purpose from 28 November 2010

From 28 November 2010 the new BRO team was responsible for the case management of all remaining dangerous buildings, both in the CBD and other areas. The BRO also took over responsibility for responding to earthquake related dangerous building Customer Service Requests.

Structure from 28 November 2010

From 28 November 2010 the BRO consisted of a team leader, an administration assistant, a CPEng engineer and a Christchurch City Council building inspector. Two case managers were also appointed early in December 2010. Additional case managers and administration personnel were appointed between December 2010 and February 2011, and four CPEng engineers were contracted in as required.

The BRO reported to the Council's Inspections and Enforcement Unit Manager, and ultimately to the Regulation and Democracy Services General Manager.

Activities from 28 November 2010

Case Management

The purpose of the BRO case management process was to manage to resolution all buildings that had received Building Act notices as a result of the earthquake. The priorities for case management were buildings in the CBD and other commercial areas (for example, the Sydenham shopping area), in particular buildings that were causing significant interruption to neighbouring building owners and to traffic flow.

The BRO case management process began on 1 December 2010 and continued until 22 February 2011.

The first stage of the process was to divide the CBD and Sydenham commercial area into 6 precincts. The map attached as **Appendix 17** shows the boundaries for each precinct.

The precinct boundaries were defined by the Council's Central City Revitalisation Team (Strategy and Planning Unit). The precincts were primarily based on the number of damaged buildings in a particular area. The intention was to align the precincts with the Council's Central City Revitalisation Strategy in order to facilitate re-development of these areas.

A precinct manager was assigned to each precinct from the Strategy and Planning Unit of the Council. The precinct managers were to focus on the longer term revitalisation of the precincts, including the repair or redevelopment of buildings and vacant sites and the retention of businesses through the provision of both financial and non-financial assistance.

BRO case managers were also assigned to the precincts. Once appointed, the BRO case manager and a BRO engineer walked through the precinct, reviewing all buildings that had unresolved Building Act notices. Photographs were taken of the buildings and external

assessments were made. The purpose of the external assessments was to determine the extent of work required to remove any danger to public spaces.

The BRO case managers then prioritised the buildings for the case management process. The priorities were determined on the basis of safety to public spaces and traffic management and cordon issues. Buildings that were assessed as not creating a risk to public safety were given lower priority.

The BRO case management process is summarised in the flowchart and associated notes attached as **Appendix 18** to this report.

The BRO case manager would initially make contact with the building owner to discuss the state of the building and any work that the owner had undertaken to date. If no progress had been made towards repairing the building, the reasons for any delay would be discussed. The case manager was expected to discuss the Building Act 2004 process with the building owner, along with any related traffic management, waste management and resource consent issues.

The degree of assistance and management provided by the BRO case manager for each building was determined by the willingness of the building owner to engage in the process and the extent to which the reasons for the delay in the repair or demolition works could be addressed.

If necessary, the BRO case manager would arrange to meet with the building owner and other interested parties, including tenants, insurance agents and assessors, engineers, contractors and any neighbouring building owners, to discuss options for remedying the issues with the building.

If the building owner offered a work programme to address the dangers posed by the building, the case manager would monitor progress on this work until it was completed. Upon completion of the work the Building Act notice could be lifted (in accordance with the process discussed below in section 5.2).

If the building owner had been attempting to take action, but delays had been caused by insurance issues, heritage issues or contractor availability, a new Building Act notice could be issued to allow additional time to repair or demolish the building.

If a building owner failed to address the dangers associated with the building, the file would be referred to the Council's Enforcement Team for further action.

In December 2010 further section 124(1)(c) notices were issued with very short timeframes in an effort to make progress on buildings where little had been done to remedy the danger posed. These notices required that building owners carry out bracing or demolition to remove the danger and to allow for cordons to be reduced. The notices were issued with the new 5 day timeframe provided for in the Building Act Order in Council and they expired on 24 December 2010. By 25th December 2010, 148 Building Act notices had been issued for buildings in the CBD.

Re-Assessment Process

The majority of Building Act notices that were issued following the 4 September earthquake and 26 December aftershocks required action to be taken to remove the danger created by the building by 31 January 2011.

Therefore, early in January 2011 the BRO wrote to the owners of all buildings that had current Building Act notices. The building owners were advised that the BRO would be re-assessing all buildings with current notices to determine what further action was required.

The re-assessment process is set out in the flowchart attached as **Appendix 19** of this report.

In summary, a CPEng engineer contracted to the BRO would conduct a site visit of the building. The engineer would assess whether the building continued to be dangerous in terms of the Building Act. If the building was considered to be dangerous, a re-inspection report would be completed and photographs would be taken.

The building file would then be handed to the case manager for the relevant precinct. The case manager would review the file and make contact with the property owner to discuss a course of action to address the issues identified by the CPEng engineer. The CPEng engineer would be asked to review and sign off any agreed action plan.

Once an action plan had been agreed between the building owner, the case manager and the CPEng engineer, the BRO administration team would prepare an updated Building Act notice and cover letter. The updated notice and letter would be referred to the Council's Enforcement Team for service.

The building file would then be transferred back to the BRO case manager, who would monitor progress on repairs in accordance with the agreed action plan. Once repairs were completed, the building owner was required to submit a CPEng Certification Form to the BRO requesting that the building's status be updated, as discussed in section 5.2 of this report.

This re-assessment process was still continuing when the 22 February 2011 earthquake occurred.

Customer Service Requests

All earthquake related dangerous building Customer Service Requests were reviewed by the BRO.

If the building identified by the Customer Service Request did not have an existing Building Act notice, a BRO field team would be sent to inspect the building. If necessary a Building Act notice would be issued and the building would be referred to the case management process discussed above.

Precinct Meetings

The BRO also arranged for a series of "precinct meetings" to be held. The purpose was to advise the owners and tenants of buildings in the precincts on the work being carried out by the BRO, to provide information about business recovery initiatives that had been introduced

and to discuss ongoing recovery plans. A question and answer session was also offered at the end of each meeting.

The Mayor was the host of the precinct meetings and the BRO case managers and precinct managers would also attend.

The precinct meetings were notified by letter drops to the buildings within the precincts and by mail to the registered building owners. Meetings were held at 7.30 am and 6.00 pm on the nominated days.

The slideshow attached as **Appendix 20** of this report contains a summary of the material discussed at the Manchester Precinct Meetings on 14 December 2010.

Cordon Management

The BRO's processes in relation to cordon management are discussed in section 6.3.

5 PROCESS TO UPDATE A BUILDING'S STATUS

5.1 During State of Emergency

During the state of emergency, a building owner was required to submit an engineer's report to the EOC if they wished to have the existing placard issued for the building changed by the Building Evaluation Team. The Building Evaluation Team asked engineers to fill out a Level 2 Form for this purpose, but engineers also submitted their own reports in relation to buildings. The engineer's report would recommend a new status for the building and the Building Evaluation Team would issue a new placard on the basis of this recommendation.

In most cases the engineers submitting the reports to the Building Evaluation Team were CPEng engineers who had also been working in the rapid assessment teams, and were familiar with the NZSEE Guidelines and the rapid assessment process.

This process was used to change placards issued as a result of both level 1 and level 2 assessments. In some cases, placards changed to less restrictive categories (for example yellow to green) but in other cases the change could be to a more restrictive category (for example yellow to red).

5.2 Post State of Emergency

After the state of emergency some building owners sought to have the status of their building changed by submitting a report from a CPEng engineer to the Council. However, the BETT became concerned that the level of information provided in some reports insufficiently addressed the dangers posed by the building. In addition, there was some inconsistency between engineers in the interpretation of a "dangerous" building for the purposes of the Building Act 2004, as modified by the Order in Council. All participants in the process were concerned that these issues should be addressed.

After discussions between representatives from the Canterbury Structural Group, the Christchurch City Council and the Department of Building and Housing, a standard form was developed for engineers to complete and submit to the Council ("the CPEng Certification Form"). A copy of the CPEng Certification Form is attached as **Appendix 21** to this report. Engineers began to use this form in October 2010.

A CPEng engineer was required to complete the CPEng Certification Form. The engineer certified that they had inspected any work undertaken to secure or strengthen the subject building and they were satisfied on reasonable grounds that:

1. If the structural integrity and/or structural performance of the subject building (or part of the building) had been materially affected by the earthquake or any aftershocks, interim securing measures had been undertaken to restore the structural integrity and performance of the building to at least the condition that existed prior to the earthquake of 4 September 2010; and
2. All potentially dangerous features of the subject building, such as unreinforced masonry chimneys, parapets and walls, had been removed or secured so that their integrity and level of structural performance was consistent with that generally achieved in other parts of the building, in order to reduce the danger to people's safety and to other property; and
3. (a) Protective measures had been installed to protect the occupants of the building in the event of collapse of potentially dangerous features on nearby or adjacent buildings; or
 - (b) Neighbouring buildings with potentially dangerous features had been identified (and listed on the form) and the owner of the subject building had been advised that approval for resumption of occupancy of the subject building was dependent on Council approval to remove the red or yellow placards from the neighbouring dangerous buildings.

In the notes accompanying the CPEng Certification Form an alternative option is available to building owners (see **Appendix 22**). This option is to improve the structural performance of the building to as nearly as is reasonably practicable to 67% of the building code standard for a new building, as set out in the Christchurch City Council Earthquake-Prone, Dangerous and Insanitary Buildings Policy 2010. (If the building was determined to be earthquake-prone in accordance with the definition in section 122 of the Building Act 2004, then this Policy would apply. The Policy is discussed in further detail in section 8.2¹²).

The building owner was required to submit the CPEng Certification Form to the BETT. A BETT engineer would review the form and the files held for the relevant building. If the BETT engineer was satisfied that all dangerous features had been addressed adequately then the building's status could be changed. If the BETT engineer had any residual concerns about the building the BETT engineer would contact the building owner's engineer to discuss this before allowing the building's status to be changed.

Once the BETT had accepted that the status of a building could be changed, the building owner would be notified in writing. If any changes to barricades or cordons were required as a result of the change of status of the building, the Council's Traffic Management Team would be advised, as discussed in section 6.3.

¹² Refer to the sub-heading "Section 122 – Earthquake-Prone Buildings".

Flowcharts illustrating the process for changing a building's status are attached as **Appendix 23** and **Appendix 24** of this report.

These processes continued to apply when the BRO took over the case management of building files, as discussed above.

An issue arose both during and after the state of emergency with placards being removed without the authority of the Building Evaluation Team (during the state of emergency) or the Christchurch City Council (after the state of emergency). In some cases this was because building owners were unaware that they needed approval to remove a placard and instead thought they could rely on their engineer's report. In other cases, building owners would remove the placards without any authorisation or any independent engineer's report.

If the BETT or BRO teams received a complaint about a placard being removed, a field inspection team would visit the building. If it was considered that the building was still dangerous, a new Building Act notice would be attached to the building.

6 THE BUILDING CORDON SYSTEM

6.1 During State of Emergency

Early on 4th September 2010, the Police closed a number of roads for the protection of members of the public to restrict access to badly damaged areas. Other roads were impassable due to the level of damage to the road or to buildings on the road. A number of bridges were also closed.

Individual buildings that were obviously dangerous were initially cordoned off by contractors at the request of staff working in the Civil Defence Operations Team, or by building owners. Building cordons and barriers took many forms – shipping containers, cones, fencing, razor wire and tape were all used.

On the evening of 4th September 2010 a cordon was established around the CBD between Kilmore Street, Madras Street, St Asaph Street and Montreal Street. A curfew was also imposed from 7.00pm on 4th September until 7.00am on 5th September 2010.

Other individual roads outside of the CBD cordon were also closed or partially cordoned for a number of reasons, including cracking to the road surface, subsidence, flooding, slumps, holes, major pavement failures and the existence of dangerous or collapsed buildings.

While the CBD cordon was in place no access was available to the CBD for the general public. However building owners could obtain permission for themselves or their engineers to enter the cordoned area for the purpose of inspecting their buildings. Permission was available from the EOC.

As the rapid assessment of buildings progressed, the CBD cordon was gradually reduced in size. By 7th September 2010 the cordon had reduced to the area between Worcester Street, St Asaph Street, Colombo Street and Madras Street.

6.2 Removal of Central Business District Cordon

On 8th and 9th September 2010, a team of 2 Police Officers, a structural engineer and a Christchurch City Council Traffic Management Team member, conducted an external review

of all buildings within the CBD cordon, including all buildings that had received a green placard.

The purpose was to put in place a plan to identify and isolate any dangerous structures or other hazards, so that the CBD cordon could be lifted.

All buildings were externally assessed and, based on this external assessment, the structural engineer determined whether any cordons or barriers were required for each building. Any remaining rubble was identified for removal. All buildings were assessed by the Police to ensure they were secure and the Traffic Management Team considered traffic flow and pedestrian safety issues.

The location of cordons and barriers required was marked on a sketch map and on the road. The Traffic Management Team member then arranged with contractors to have the necessary barriers and cordons established around the relevant buildings.

The CBD cordon was removed on the morning of 10th September 2010, when all buildings within the cordon had been assessed and all dangerous buildings and other hazards had been isolated.

6.3 Post State of Emergency

Immediately after the state of emergency, the BETT and the Council Traffic Management Team were responsible for cordon management. This role included managing the process to remove cordons, and ensuring that appropriate cordons had been established around dangerous buildings. This role applied to the whole city.

The BETT processes discussed below were also adopted by the BRO when it took over the case management of dangerous building files. The notes used by the BETT and the BRO in relation to monitoring and reviewing cordons and barricades are attached as **Appendix 25** to this report.

The focus was on reducing the remaining cordons to ease traffic congestion, to allow bus routes to re-open and to assist businesses to return to normal trading conditions; while at the same time protecting the public from damaged and dangerous buildings.

The Traffic Management Team received all instructions through the BETT. It did not take instructions directly from building owners or their engineers. BETT would email detailed instructions to the Traffic Management Team regarding cordon design or removal. The Traffic Management Team liaised with Council contractors who would place and remove cordons.

Issues did occur with building owners making arrangements directly with contractors to establish or remove cordons around their buildings, without reference to the BETT. In other cases, buildings would be demolished, or dangerous features dealt with, but the BETT would not be informed. This resulted in cordons remaining in place where they were not needed.

Process for Establishing New Cordons

Information relating to the need to establish new barricades and cordons came to the BETT from several different sources – from Customer Service Requests relating to dangerous

buildings, from the engineers engaged by building owners and from BETT field inspection teams.

All decisions about the location of new cordons would be made by CPEng engineers in accordance with the notes attached in **Appendix 25**. If the engineer was engaged by a building owner, his or her recommendation would also be peer reviewed by the BETT engineer.

The instructions emailed to the Traffic Management Team in relation to new cordons would include either an aerial photograph or a sketch map with the cordons marked.

Process to Remove or Alter Cordons

The procedure used by the BETT and Traffic Management Team for the removal of temporary cordons and barriers at the request of building owners is attached as **Appendix 26**.

In some cases, a BETT engineer and a member of the Traffic Management Team would conduct a site visit to a building before allowing a cordon to be removed.

BETT Review of Cordons

The BETT and Traffic Management Team also proactively reviewed the use of barriers and cordons. The Traffic Management Team provided a schedule of key cordons to the BETT to review as a priority, to assist with the improvement of traffic flows and pedestrian safety. A BETT engineer inspected these sites and would note all hazards that remained to be addressed.

If it was considered that a cordon could be reduced or removed, the proposed reduction was discussed with the Traffic Management Team. If the Traffic Management Team agreed that the proposal would assist with traffic flows and pedestrian safety the necessary arrangements would be made with Council contractors.

7. 26 December 2010 aftershock

7.1 Immediate Response

On 26th December 2010 a series of aftershocks occurred in Christchurch - the most significant was a magnitude 4.9 which struck at 10.30am, centred very close to the CBD. Christchurch City Council and other emergency services staff established an Emergency Operations Centre at the Hereford Street Civic Offices soon after this aftershock occurred.

A Police cordon was initially established between Lichfield Street, Colombo Street, Hereford Street and Oxford Terrace. The area was not evacuated, but people were not permitted to re-enter the area while initial building evaluations were underway. The cordoned area gradually reduced over the 26th and 27th December 2010 as building evaluations continued.

Shortly after 10.30am, a Christchurch City Council building inspector and a Civil Defence volunteer trained in emergency management conducted an initial reconnaissance of the damage caused. Their reconnaissance route began on the corner of Tuam Street and Madras Street. They continued from there to the Sydenham end of Colombo Street and then returned to Cashel Mall.

Other building inspectors and engineers arriving at the Hereford Street Civic Offices were also sent out to conduct initial reconnaissance work in the CBD and along arterial routes. As with the 4th September 2010 event, the initial reports of damage were recorded on whiteboards in the EOC.

In addition to this initial reconnaissance work, engineers from the USAR Task Force Team also carried out building inspections in the CBD on 26th and 27th December 2010. The USAR teams completed "USAR Damaged Building Reconnaissance Reports" for the buildings inspected. The USAR assessments were made from vehicles and involved only a drive by assessment of the walls that could be seen from the road. As such, they were a very preliminary assessment only. The USAR teams did not issue rapid assessment placards.

7.2 Decision Regarding State of Emergency

Under section 68 CDEMA a state of local emergency may be declared, by a person with the relevant authority, if at any time it appears to the person that an emergency has occurred or may occur within the area.

The state of emergency may be declared for the whole area of the Civil Defence Emergency Management Group concerned, or for 1 or more districts or wards within the area.

Section 4 CDEMA states that "emergency" means a situation that:

- (a) *is the result of any happening, whether natural or otherwise, including, without limitation, any...earthquake,...and*
- (b) *causes or may cause loss of life or injury or illness or distress or in any way endangers the safety of the public or property in New Zealand or any part of New Zealand; and*
- (c) *cannot be dealt with by emergency services, or otherwise requires a significant and co-ordinated response under this Act".*

On 26th December 2010, the Deputy Mayor had the relevant authority to declare a state of emergency for Christchurch under the CDEMA. The Deputy Mayor received advice from the Christchurch City Council Civil Defence and Emergency Management Manager and the Local Controller rostered for that day, and the information from the initial damage assessments was reviewed.

It was determined that the situation did not require a declaration of a state of local emergency. It was considered that emergency services were responding adequately to the event, that the extent of the damage was limited to a small area and there was little damage or disruption to services in residential areas. It was therefore determined that the requirements of sections 68 and 4 CDEMA were not met.

7.3 Building Assessment Process

The NZSEE Guidelines were also put into operation following the Boxing Day earthquake. As information was collected from the building inspectors conducting the initial reconnaissance work and from the preliminary USAR building evaluations, it became clear that the worst damaged areas were Cashel Mall and Hereford Street. These areas were prioritised for rapid assessment. Priorities also included evaluating buildings in Cathedral

Square, inspecting arterial routes, re-opening the tram routes and responding to Customer Service Requests relating to potentially dangerous buildings.

Rapid assessment teams were formed on 26th December 2010. These teams included one building inspector, one CPEng engineer and, where available, one civil defence rescue team member. Fewer people were available for the rapid assessment teams because the aftershocks had occurred over the Christmas holiday period. In addition, because there had been no declaration of a state of emergency, the indemnity provisions in the CDEMA did not apply. As a result, fewer engineers volunteered their services for the building evaluation process.

Level 1 and 2 rapid inspections were carried out in the CBD by the rapid assessment teams between 26th and 28th December 2010. The rapid assessment teams completed rapid assessment forms as discussed in section 3.2 of this report.

The priorities for Level 2 rapid assessments were determined in the same manner as had been applied following 4th September 2010.

The rapid assessment teams were initially issuing green, yellow and red placards as discussed in section 3.2 of this report. However, during 27th December 2010 it was determined that the NZSEE placards could not be enforced, given that no state of emergency had been declared.

The rapid assessment teams reverted to categorising buildings as either green or red. Red buildings were those considered to be dangerous in terms of the definition in the Building Act 2004, as modified by the Order in Council. Any buildings that had received a yellow placard in the initial stages of the rapid assessment process were re-inspected – either as a Level 2 assessment, or by the BRO team.

On 29th December 2010 BRO staff returned to normal working hours. The BRO field inspection teams took over the inspection process.

All red placarded buildings were referred to the Council's Enforcement Team and were issued with appropriate Building Act notices and cover letters. The notices issued were either a section 124(1)(b) "no entry" notice or both a section 124(1)(b) notice and a section 124(1)(c) notice (requiring a building owner to carry out work within a certain timeframe to reduce or remove the danger).

A total of 177 new Building Act notices were issued for buildings in the CBD as a result of damage caused by the Boxing Day aftershock.

Access to Cashel Mall and Cathedral Square

In addition to the building assessment process described above, two CPEng engineers were engaged to review buildings in and around Cathedral Square, to determine whether it would be safe to hold the New Year's Eve celebration there. The report relating to Cathedral Square and the surrounding streets is attached as **Appendix 27**.

Council officers also recollect that an independent CPEng engineer was engaged to prepare a plan to restore pedestrian access to Cashel Mall.¹³ Cashel Mall re-opened to pedestrians on 29th December 2010 on the basis of this plan, with unsafe buildings cordoned off.

Information About Building Assessments

Further media releases regarding building evaluations were required after the 26th December 2010 event. Initial media releases referred to road closures and advised that building evaluations would be carried out in the central city.

A further media release at 9.30pm on 26th December 2010 states:

“The work being carried out today in the Central City by Civil Defence building assessors, assisted by the New Zealand Fire Service, is an initial check of the extent of damage, with the aim of protecting public safety on footpaths and roads adjacent to damaged buildings.

It is the responsibility of building owners, working with their insurers, to have their buildings structurally assessed by engineers. Any remediation work necessary will be carried out by the building owner and their insurer”.

This media release is attached as **Appendix 28** of this report.

A further media release on 27th December 2010 also refers to building owners obtaining their own assessments of buildings. The media release states:

“Central City business owners urged to check their buildings

Owners of buildings in areas affected by yesterday’s aftershocks are being asked to check the safety of their buildings.

Deputy Mayor Ngaire Button says while most of the city is open for business, the Cashel Street area between Oxford Terrace and Colombo Street and around Hereford Street has sustained some damage and has been cordoned off.

“We need the owners to bring in their structural engineers to assess the buildings and to ensure safety measures are in place. They also need to ensure the security of their property or business.

“Council is working in close conjunction with Police and the Fire Service and we need the building and business owners also to get on board and work with us by having engineers assess their buildings and for them to contact their insurance companies. We do need to ensure public safety””.

A copy of this media release is attached as **Appendix 29** of this report.

¹³ A copy of the Cashel Mall pedestrian access plan has not yet been located.

8. POWERS AVAILABLE TO THE COUNCIL AND OTHER AUTHORITIES TO DEAL WITH BUILDINGS IN RESPONSE TO THE EARTHQUAKES

8.1 Powers exercised during a state of emergency

This report sets out in **Appendix 2** the general powers available to the various bodies, including the Council, under the CDEMA when a state of emergency is declared. Although the CDEMA provides in section 6 that the Act “*does not limit, is not in substitution for, and does not affect the functions, duties, or powers of any person under the provisions of any enactment or any rule of law*”, the Council did not exercise any of its “building” related statutory powers during the state of emergency.

The NZSEE Guidelines, discussed in **Appendix 3**, contemplate that Building Act 2004 notices will replace the rapid assessment placards prior to the state of emergency ceasing, because the rapid assessment placards do not have any effect once the state of emergency is lifted.¹⁴ There was insufficient time for the Council to carry out this replacement exercise before the state of emergency came to an end on 16th September 2010, given the numbers of buildings concerned.

This problem was addressed by clause 8 of the Canterbury Earthquake (Building Act) Order 2010 (“the Order”, attached as **Appendix 30**). That clause provided that the red and yellow placards described in the NZSEE guidelines, and stated to be issued under part 5 of the CDEMA during the state of emergency (described in the Order as red cards and yellow cards) were deemed to be Building Act notices. Clause 9 of the Order meant they would be effective for 60 days from the date each red or yellow card was issued.

The red placards became section 124(1)(b) notices, warning people not to approach the building. The yellow placards became section 124(1)(d) notices (a new notice created by the same Order) restricting entry to a building other than for particular purposes or by particular persons as specified on the placard.

Green placards issued during the state of emergency did not need to be replaced with a Building Act notice. A green placard did not provide any limits on approaching, entering or using a building.

8.2 Building Act 2004 and other statutory powers for dealing with buildings

Introduction

The Council has a number of powers in the Building Act 2004 that enable it to deal with dangerous, insanitary and earthquake-prone buildings. Those powers can be exercised by the Council at any time and are not specifically for use during an emergency. However, those powers were extended and amended in various ways in the Order, so as to provide more effective ways for the Council to use the powers to address issues arising from the 4 September 2010 earthquake.

The Resource Management Act 1991 contains enforcement powers that could potentially be used to address some of the issues arising from the existence of dangerous or insanitary

¹⁴ *New Zealand Society for Earthquake Engineering, Building Safety Evaluation During a State of Emergency Guidelines for Territorial Authorities, August 2009, page 16.*

buildings (or other building related issues) but the more specific powers in the Building Act are generally used. The Council did not deal with buildings affected by the 4 September 2010 or Boxing Day earthquakes by using any of its Resource Management Act powers.

There are also powers in the Health Act 1956 that could be used in conjunction with or separately from Building Act 2004 powers. The Health Act powers are not immediately relevant to addressing structural damage to buildings, and are generally more relevant to unsanitary issues. Those powers are therefore not further discussed. The Council can provide more information about those powers if required.

There are powers in other legislation that could be exercised by the Council which may have an indirect result for a building or block of buildings. For example, the power to close roads temporarily under the Local Government Act 1974, which may be for another purpose, can also assist in keeping people away from dangerous buildings.

Other bodies also have powers and duties that could or should be exercised under other legislation. For example, under the Health and Safety in Employment Act 1992, employers have a general duty in section 6 to take all practicable steps to ensure the safety of employees while at work, which includes providing a safe working environment. Such an environment would include providing a safe building to work in.

Under section 30 of that Act inspectors have functions that include ascertaining whether or not the Act has been, is being, or is likely to be complied with, and to take all reasonable steps to ensure that the Act is being complied with. Section 31 also allows an inspector to direct an employer or any other person controlling that place of work, to conduct inspections. It appears this could include inspections of the building that is the place of work.

The relevant powers in the different pieces of legislation are included in **Appendix 31** to this report. The Building Act sections show the amendments made by the Order, as at the date the Order was made.

The following commentary summarises the powers in each Act.

Building Act 2004 powers prior to 16 September 2010

Sections 71 – 73 – applications for consent on land subject to natural hazards, and clause B1 (Structure) of the Building Code

The Council has powers under sections 71-73 of the Building Act 2004 (there were similar powers in the Building Act 1991) in relation to the approval of building consents where the land on which the building is to be located is subject to a "natural hazard". Rockfall or landslip hazards, which might have been created or made worse by an earthquake, are "natural hazards" that can be addressed by these provisions. However, earthquakes themselves are not a "natural hazard" under these provisions, and neither is the potential for liquefaction to occur on land.

The apparent reasoning for earthquake related hazards/issues not being included in sections 71-73 is that there are building code requirements that address such matters. Clause B1 (Structure) of the Building Code states that "*Buildings, building elements and sitework shall have a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during construction or alteration and throughout their lives*" (B1.3.1).

B1.3.3 provides that "*account shall be taken of all physical conditions likely to affect the stability of buildings, building elements and sitework, including ... (d) Earth pressure, (e) Water and other liquids, (f) Earthquake ... (l) Reversing or fluctuating effects, (m) Differential movement,....*", etc. Any sitework and associated supports must also take into account certain conditions, including ground loss and slumping (B1.3.7).

A brief summary of the powers in sections 71-73 is included below but the powers are relatively limited, in the context of the Council's ability to deal with buildings in response to the earthquakes.

Section 71 provides that a building consent application must be refused for work on land subject to a natural hazard unless the Council is satisfied that the land, building work, or other property will be protected from the hazard or that any damage will be restored.

An application required to be refused under section 71 must nevertheless be granted under section 72 if the building work will not accelerate, worsen, or result in a natural hazard on the land on which the building work is to be carried out or any other property.

The Council can impose any special conditions it thinks appropriate on a consent that is granted under sections 71 or 72. A mandatory condition, if consent is granted under section 72, is that the Council must notify the Registrar General of Land who puts a "tag" on the title to notify that it is subject to a natural hazard (section 73). With such a condition in place section 392 then exempts the Council from civil liability for issuing a building consent under section 72.

Therefore sections 71-73 are of limited assistance in responding to buildings affected by the earthquake, except for those subject to rockfall or landslip hazards (previously existing or made worse by the earthquakes).

Section 112 – alterations to buildings

Section 112 provides that the Council must not grant a building consent for the alteration of an existing building (the definition of alter also includes repair) unless it is satisfied that the altered building will comply as nearly as is reasonably practicable with the provisions of the Building Code for means of escape from fire and, if applicable to the building, access and facilities for persons with disabilities. This requirement can be modified in some situations, but there still has to be some improvement in the building in relation to either means of escape from fire or disabled access.

For many commercial buildings damaged in the earthquakes, if interim repairs to the buildings required a building consent then the building owners would also need to upgrade the whole of their buildings in relation to means of escape from fire and disabled access immediately. It was not always practical to immediately require this upgrading, particularly for repairs such as interim securing of buildings. To address this issue, in most cases the Council would not require a building consent for interim securing works, which meant the section 112 upgrading would not be triggered until the major repairs to the building were carried out. This approach was identified in the CPEng Certification form, attached at **Appendix 21** of this report.

Section 121 – dangerous buildings

Section 121 of the Building Act 2004 defines what can be a "dangerous" building. There are only two options. They are, if, "*in the ordinary course of events (excluding earthquakes), the*

building is likely to cause" injury or death (whether by collapse or otherwise) to any persons in the building or to persons on other property, or damage to other property, and where the building is a fire hazard.

The Canterbury Earthquake (Building Act) Order 2010 amended section 121 by providing 3 additional situations that would qualify a building as a dangerous building. This is discussed below.

Section 122 – earthquake-prone buildings and the Council's Earthquake Prone Buildings Policy

Section 122 defines an earthquake-prone building. Essentially, a building is earthquake-prone if, in a moderate earthquake, it is likely to cause injury to people or damage to other property. Residential buildings cannot be earthquake-prone buildings unless they comprise 2 or more storeys and contain 3 or more household units.

The definition of "moderate earthquake" is set out in the Building (Specified Systems, Change of Use, and Earthquake-prone Buildings) Regulations 2005. As a general guide, an earthquake-prone building will have a strength that is less than 33% of the seismic loading standard in NZS1170.5:2004. (As noted below, the seismic loading factor for Christchurch in NZS1170 changed on 19 May 2011.)

In relation to an earthquake-prone building the Council also has additional guidance in its policy adopted under section 131 of the Building Act 2004. This policy sets out the Council's approach in relation to dealing with such buildings. The Council adopted its first policy in 2006, and reviewed and revised this in early 2010. Consultation on its proposed revised policy was carried out from 30 March 2010 to 7 May 2010, before the 4th September 2010 earthquake. The Council Hearings Panel in relation to the policy had met, and already made a decision which was due to be recommended to the Council for adoption at the end of September. The Panel hearing the policy had identified a gap in the current policy and in its report to Council proposed a new section to clarify how to handle known Earthquake-prone Buildings in the event that they were damaged by an earthquake and needed to be repaired.

The Council's updated policy was adopted on 10th September 2010. It contains a new section (proposed in the consultation documents). The policy can be found on the Council's website at the following address:

<http://resources.ccc.govt.nz/files/EarthquakeProneDangerousAndInsanitaryBuildingsPolicy2010.pdf>

The policy includes the Council's requirements and targets for strengthening of buildings and establishes timeframes for earthquake strengthening of earthquake-prone buildings (those that are under 33% strength of the current Building Code requirements).

In relation to the level of strengthening required for buildings, the Council stated in section 2.3.1 of the Policy that:

"The Council will use the New Zealand Society of Earthquake Engineers' (NZSEE's) Recommendations as its preferred basis for defining technical requirements and criteria, including the level of strengthening required to reduce or remove the danger posed by each building. These Recommendations state that strengthening existing buildings to 67% of

current Building Code requirements for structural performance is considered to reduce the risk posed by these buildings to a reasonable level, taking into account the economic feasibility of strengthening. The Recommendations are designed to be used in conjunction with AS/NZS 1170 Loadings Standard, NZS 3101 Concrete Structures Standard, NZS 3404 Steel Structures Standard and other materials Standards.”

The only way to enforce the strengthening of earthquake-prone buildings is to use the powers in section 124 of the Building Act 2004. The policy notes that “*before exercising its powers under section 124, the Council will discuss options for action with owners, with a view to obtaining from the owner a mutually acceptable approach for dealing with the danger, leading to receipt of a formal proposal from the owner for strengthening or removal of the earthquake-prone building*” (section 2.3.3 of the policy).

The Council will seek strengthening to 67% of code during this process, but if it has to issue a section 124 notice it can only require that the building owner take steps so that their building is no longer earthquake-prone. A recent determination from the Department of Building and Housing has confirmed this approach with regard to section 124(1)(c) notices for earthquake-prone buildings (see “*The exercise of the powers of an authority to issue a notice under section 124 of the Act regarding a building considered to be earthquake-prone*”, DBH Determination 2010/133, 20th December 2010).

The timeframes in the policy were set in accordance with the Department of Building and Housing’s guidelines and range from 15 to 30 years, depending on the importance of the building. The policy indicates that these timeframes will be introduced from 1 July 2012, by which time consideration will have been given by the Council to the introduction of a package of non-regulatory tools and incentives.

In section 2.3.3 of the Policy the Council also notes that when setting timeframes for action on an earthquake-prone building, it will take into account previous strengthening and/or any contractual or statutory obligations that the building owner may be subject to, as well as any written notification of the timeframes the building owner has already received from the Council.

The Council also allows in section 2.3.4 for possible extensions of time for strengthening, but any extension will not exceed three years, will be subject to conditions set by the Council, and only one extension of time will be granted for each building. The CPEng Certification Form refers to strengthening for buildings needing to be done by September 2013, which relies on this extension provision in the Policy.

There are some situations when the 15-30 year timeframes for earthquake strengthening do not apply. One of these is discussed in the new section on earthquake-prone buildings that are damaged in an earthquake. Section 2.3.6 provides:

"2.3.6 Buildings damaged by an earthquake

Buildings may suffer damage in a seismic event. Applications for a building consent for repairs will be required to ensure structural strength. The Council will follow sections 2.3.1 and 2.3.3 of this Policy in determining the level of strengthening required for each building.

If a building consent application for repairs is not made and/or the repair work is not completed within a timeframe that the Council considers reasonable the Council reserves the right to serve notice under section 124(1) of the Building Act 2004 to require the work to be done."

Section 2.3.6 only applies to buildings which suffer damage in an earthquake that require a building consent to carry out repairs. If an "Earthquake-prone Building" is undamaged and does not need repair, or does not need a consent to repair, the policy requires seismic upgrading in accordance with the timeframes in the policy.

Following the 4th September 2010 earthquake, the Council developed some additional guidance and processes for dealing with buildings damaged in the earthquake that were also earthquake-prone. The first was a document developed in conjunction with the Canterbury Structural Group, the Department of Building and Housing, Council's legal advisor, the BETT project manager and engineering support coordinator. This document was the CPEng Certification form attached as **Appendix 21**.

The second document was a protocol for assessing buildings damaged in the earthquake (developed in conjunction with the Insurance Council). It set out the Council's general approach to the relationship between earthquake-prone buildings, the Council's earthquake-prone buildings policy and the provisions of the Building Act 2004. A copy of that Protocol is attached as **Appendix 32**.

Sections 124 -128 – Powers in respect of dangerous, earthquake-prone, or insanitary buildings

Section 124 of the Building Act 2004 sets out the Council's options if the Council considers a building to be dangerous, earthquake-prone or insanitary. Section 129 provides options for the Council if the danger posed by the building is immediate (discussed below).

Section 124(1) provides that if the Council "*is satisfied that a building is dangerous, earthquake prone, or insanitary, the territorial authority may*":

- (a) put up a hoarding or fence to prevent people from approaching the building nearer than is safe;
- (b) attach in a prominent place on, or adjacent to, the building a notice that warns people not to approach the building;
- (c) give written notice requiring work to be carried out on the building, within a time stated in the notice (which must not be less than 10 days after the notice is given, to reduce or remove the danger or prevent it remaining insanitary).

It appears these powers can be exercised separately, or one or more of the powers could be exercised at once.

If a notice under section 124(1)(c) is issued, then section 125 sets out the requirements for the notice. It must be attached to the building and served on specified interested parties, but if it is not served on all the parties then provided it is attached to the building, it is valid.

If the owner does not do the work within the time specified then the Council, after giving notice of its intention to do so, may apply to a District Court for an order authorising the Council to do the work and recover the costs from the owner (section 126). Section 127 makes it clear that the work can comprise demolition of a building.

While section 124 includes an offence for non-compliance with a section 124(1)(c) notice, section 128 makes it an offence to use or occupy, or to permit another person to use or occupy, a building for which a hoarding or fence has been erected under section 124(1)(a) or a notice attached under section 124(1)(b).

It is important to note that section 124 of the Building Act 2004 (and section 129) does not override the Resource Management Act 1991. If work required to remove or reduce the danger presented by a building also requires a resource consent, the resource consent must be obtained prior to the work being carried out (unless the emergency powers in section 330 of the Resource Management Act 1991 can be relied on).

Section 129 – Measures to avoid immediate danger or to fix insanitary conditions

Section 129 of the Building Act 2004 also provides an option for the Council in relation to a dangerous building where the state of the building is such that “*immediate danger to the safety of people is likely in terms of section 121*”. (There is no mention of risk of damage to other property in section 129.) The process is that the chief executive issues a warrant to allow immediate action to be taken to remove the danger, and that action can include demolition of buildings as well as the repair of buildings.

The test for “danger to the safety of people” being “likely” requires that the risk of the building causing injury or death to people must be “a reasonable consequence” or “something which could well happen”. But in section 129 the concept of “immediate” is also important.

In *Rotorua DC v Rua Developments Ltd* 3/3/98, Judge McGuire, DC Rotorua NP966/97, the Court held that “immediate danger is apprehended when there is an honest belief that there is an immediate danger” but that does not require a high degree of certainty. Neither does that give the chief executive carte blanche to issue warrants. Issuing a warrant amounts to “a significant invasion of the property rights of the owner”, so it is required to be issued in good faith. Warrants should not authorise work “that is more than what is needed to remove the immediate danger or where immediate danger cannot honestly be said to have been apprehended”.

If the chief executive issues a warrant then the Council is responsible for the costs of the repairs or demolition it undertakes, but it can recover those costs from the owner as a debt and can register a statutory charge against the land. On completion of the action stated in the warrant, the Council must apply to a District Court for confirmation of the warrant, unless the owner does not dispute the entry or the costs.

Sections 222 - 226 – Inspections

Under section 222, the Council's authorised officers are empowered to enter on any land or premises for a number of purposes including for the purpose of determining whether the building is dangerous, earthquake prone, or insanitary.

Despite section 222, an authorised officer may not enter a household unit that is being used as a household unit without the consent of the occupier or with an order from the Court. The authorised officer must produce a warrant and owners and occupiers have a duty to give reasonable assistance with the inspection.

Building Act 2004 powers, as amended by the Canterbury Earthquake (Building Act) Order 2010

The Order, which is in effect until 16th September 2011, enlarges on the “dangerous building” definition in section 121 to include:

- “(c) *there is a risk that the building could collapse or otherwise cause injury or death to any person in the building as a result of an earthquake that generates shaking that is less than a moderate earthquake; or*
- (d) *there is a risk that other property could collapse or otherwise cause injury or death to any person in the building; or*
- (e) *a territorial authority has not been able to undertake an inspection to determine whether –*
 - (i) *the building is dangerous under paragraph (a); and*
 - (ii) *the territorial authority or the chief executive, as the case may be, is required to exercise powers under section 124 or 129 as modified by this order.”*

Section 124 was amended to provide a further option for the Council to address a dangerous building. The Council could now also “*issue a notice restricting entry to a building for particular purposes or restricting entry to particular persons or groups of persons*”.

As already mentioned, in relation to buildings that received a red or yellow placard under powers in the CDEMA, those placards became deemed Building Act notices under section 124(1)(b) [red] and section 124(1)(d) [yellow]. The notices were valid for 60 days from when they were issued unless they were renewed. Because they were deemed Building Act notices, there was no formal decision made under section 121 (as amended) that the buildings were “dangerous”.

Section 124(1)(c) was also amended to provide that the time stated in the notice must not be less than 5 days after the notice is given (instead of 10 days), and to provide information to the owner that if the work is not done by the owner, the Council can do the work and recover the costs from the owner. As noted above, clause 9 was also amended to provide that both section 124(1)(b) and (1)(d) notices only have a life of 60 days. Under normal Building Act powers a section 124(1)(b) notice does not have an expiry date.

Section 126 was also amended to provide that an application to the Court is not required before the Council does any work in default of the owner doing it, but the owner can still apply to the Court to challenge the costs the Council seeks to recover (clause 11). Sections 127 and 128 were also amended to provide that work carried out by the Council under section 129 may include demolition, and failing to comply with section 124(1)(d) is also an offence under section 128 (clauses 12 and 13).

If the Council uses its powers under section 129, then it does not currently need to apply for any resource consent that may also be required (as a result of the Canterbury Earthquake (Resource Management Act) Order 2010). In addition, the Council is exempted from the

requirement in section 130 to apply to the District Court for confirmation of the warrant (clause 16).

Clause 18 also extended the definition of authorised officer in section 222(4) of the Act so that an authorised officer includes any person accompanying the authorised officer.

Changes to the compliance documents for the Building Code

The changes to the compliance document¹⁵ for clause B1 of the Building Code will now allow the Council to require stronger foundations and to consider the effects on land of liquefaction and lateral spread when it considers building consents for repairs to buildings damaged in the earthquakes, or for the construction of new buildings. It could not have imposed the same requirements for any building consents prior to 19 May 2011, when the changes came into effect.

The B1 compliance document generally requires building foundations to be on "good ground", but also refers to the fact that special foundations will be needed where good ground cannot be established (and the compliance document cannot be relied on).

The amendments to this compliance document, which are specifically for the Canterbury Earthquake region (the area covered by the Christchurch City Council, the Selwyn District Council and the Waimakariri District Council), increase the seismic hazard factor for Canterbury and require stronger foundations for buildings because of new knowledge about the earthquake risk in the region.

Among other changes, there are amendments to the definition of "good ground" to exclude, in addition to other ground movement conditions, liquefaction, and lateral spread. The seismic hazard factor Z (described in AS/NZS 1170 (Structural Design Actions)), has been increased from 0.22 to 0.3 as a minimum.

An information sheet on the changes has been published by the Department of Building and Housing and can be found at: <http://www.dbh.govt.nz/information-sheet-seismicity-changes>.

8.3 Powers under the Canterbury Earthquake Response Act 2011

The Canterbury Earthquake Response Act 2011 has provided for powers that can be exercised by either the Chief Executive of CERA, or the Minister, in relation to buildings. These powers are much more encompassing than the powers that were available to the Council after the 4th September and Boxing Day earthquakes.

The Act includes the following provisions in relation to the demolition of buildings:

Section 38 - Works

This section enables the Chief Executive of CERA to commission works including:

15 Compliance documents provide one means of complying with the requirements of the New Zealand Building Code. They are not mandatory, but buildings built to the method described in a Compliance Document are automatically deemed to comply with the Building Code.

- the demolition of all or part of a building, structure, or other erection on or under land; and
- the removal and disposal of any building, structure, or other erection on or under land, or material.

As part of these works the Chief Executive may remove fixtures and fittings from any building.

Works may be undertaken on or under public or private land, and with or without the consent of the owner or occupier.

The process where the Chief Executive intends to commission works is:

- The Chief Executive gives written notice to an owner of a building, structure, or other erection on or under land that demolition work is to be carried out there.
- The owner must within 10 days after the Chief Executive's notice, respond stating whether or not the owner intends to carry out the works and, if the owner intends to do so, specifying a time within which the works will be carried out.

If the owner fails to respond or the Chief Executive is not satisfied with the time specified, or the works are not carried out in the time specified or otherwise agreed then:

- the Chief Executive may commission the carrying out of the works; and
- in the case of the demolition of a building to which section 40(1) or (2) applies, the Chief Executive may recover the costs of carrying out the work from the owner of the dangerous building in question. The amount recoverable becomes a charge on the land on which the work was carried out.

Section 39 – Demolition & other works

This section provides the steps where section 38 works are being undertaken. They are divided into essentially two areas – health and safety and notice provisions.

Health & Safety

Section 39(2)(a) and (b) permits the Chief Executive to:

- put up a hoarding or fence to prevent people from approaching works nearer than is safe; and
- attach in a prominent place on, or adjacent to, the works a notice that warns people not to approach the works.

Notice

Where the works are being undertaken the Chief Executive may write directly to an owner, occupier, or other person notifying them of the work to be carried out and/or requiring them to leave the works or land for a specified period or until further notice (section 39(2)(c)). There

is no right of appeal or objection to this notice and it must be given at least 1 month in advance of the works (section 39(7)).

The notice should be given to all affected parties if practicable (there is a list in section 39(3)(a)) but this includes the owner and occupiers.

Where the works do not require parties to leave the land, but it is necessary to enter the land to complete works, notice should be given 24 hours in advance of any works.

An exception to the above is where emergency works are required. In this situation no notice is required (these works include where there is risk to life or danger to adjoining property, section 39(5)).

Sections 40, 41 and subpart 5 – Compensation for demolition of buildings and damage to other property

These sections provide for compensation to be made in certain circumstances and also provide when there is no liability for compensation. There is also a procedure for claiming compensation in subpart 5 of the Act. This report does not discuss these provisions or the compensation procedure.

Other powers relevant to dealing with buildings:

Section 44 – Temporary Buildings

Under section 44, the Chief Executive may erect or authorise the erection and use of temporary buildings on any public reserve, private land, road, or street and provide for their removal. This can be done without resource consent or building consent.

Section 46 – Closing and stopping roads

The Chief Executive may totally or partially prohibit or restrict public access, with or without vehicles, to any road or public place within greater Christchurch for as long as he considers necessary.

In order to undertake this power, the Chief Executive must consult the relevant road controlling authority:

- before stopping a road or part of a road under this section;
- if practicable, before exercising any other power under this section in relation to a road.

Section 48 – Directions to take or stop action

Under this section, the Minister for Canterbury Earthquake Recovery can direct any council or council organisation to take or stop taking any action, or to make or not make any decision. This direction cannot relate to setting rates. The section specifically refers to decisions on matters relating to resource management issues, namely any action or inaction required, authorised or prevented by a resource consent, a rule in a plan that permits an activity, a designation, and an existing use right, among other things. However, that list is

stated to be without limitation, so section 48 would also allow the Minister to give directions to the Council in relation to building consents and other Building Act matters.

Section 51 – Requiring structural survey

This section allows the Chief Executive to require any owner, insurer or mortgagee of a building that may have been affected structurally in the earthquakes to carry out a full structural survey of the building before it is reoccupied. This is a key power for CERA that can be exercised in relation to any building, whether it is considered to be a dangerous building (under the Building Act 2004 definitions), or not. The Council does not have the same powers under the Building Act, or any other legislation, to require owners to provide such reports (or have such reports prepared) at the owner's cost.

Section 52 - Adjoining or adjacent owners

The Chief Executive may direct that the owners of any two or more adjoining or adjacent properties act for the benefit of any other adjoining or adjacent owners in the manner specified by the Chief Executive.

Section 53 – Acquiring and disposing of property

The Chief Executive may, in the name of the Crown, purchase or otherwise acquire, hold, sell, exchange, mortgage, lease, and dispose of land and personal property.

Section 54 - Notice of intention to take land

The Minister for Canterbury Earthquake Recovery may acquire land compulsorily (refer to the section for the details of advertising, notice and other requirements).

Section 58 – Offering back land

Under this section where any residential land in the CBD, or any land in greater Christchurch outside the CBD, is compulsorily acquired and the Chief Executive wishes to exercise his or her power under this Act to dispose of the land, the Chief Executive must offer to sell the land by private contract to the person from whom it was acquired or their successor, unless it is impracticable to do so.

Section 83 – Liability

This section provides for indemnity in several scenarios – general indemnity in relation to any actions taken and indemnity in relation to demolition works.

General

Except as provided in the Act the Crown has no liability for any:

- damages or other amount for any loss, damage, or adverse effect that is due directly or indirectly to any action taken under this Act; or
- work required to be carried out or other action to be taken in order to remedy or mitigate any loss, damage, or adverse effect that results directly or indirectly from any action taken under this Act.

This applies whether there was an act or an omission to act, so long as the act or omission occurred in the exercise or performance, or intended exercise or intended performance, of the functions, duties, or powers under this Act.

This exemption does not extend to any act or omission to act that constitutes bad faith or gross negligence on the part of that person.

Where an action is taken under the Act, there is no liability under the Resource Management Act 1991 for any fine, costs, or expenses in respect of that action, except as otherwise provided in the Act.

Demolition

If the Minister for Canterbury Earthquake Recovery or the Chief Executive becomes a party to any agreement or arrangement entered into by a council for the purposes of carrying out demolition or other works, then the Minister or Chief Executive is entitled to the full benefit of any provision in the agreement or arrangement that limits or excludes any liability of the council (such as liability for damage caused by, or for the costs of, demolition work) under the agreement or arrangement.

If the council assumes any liability of the Minister or Chief Executive in relation to demolition or other works under this Act, the council is entitled to the full benefit of any provision in an agreement or arrangement that limits or excludes any liability of the Minister or the Chief Executive (such as liability for damage caused by, or for the costs of, demolition work) under the agreement or arrangement.

Where the Council or a council organisation acts in accordance with a direction from the Chief Executive under section 48(1) [a direction to take action or stop any action] there is no liability for any loss or damage resulting from acting in accordance with the direction, unless it acts in bad faith or with gross negligence.

APPENDIX 1

TIMELINE OF EARTHQUAKE RELATED EVENTS

TIMELINE OF EARTHQUAKE RELATED EVENTS

4 Sept 2010	4.35am – magnitude 7.1 Darfield earthquake.
	Overall damage survey begins.
	6.10am – EOC established at Christchurch Art Gallery.
	9.33am – state of local emergency declared under section 68 Civil Defence Emergency Management Act 2002.
	Preparations begin for rapid assessment of CBD buildings.
	CBD Police cordon established.
5 Sept 2010	9.30am – briefing of rapid assessment teams at the EOC.
	Level 1 rapid assessments begin in the CBD.
	Evening - USAR engineers conduct a general review of placards issued in the CBD.
6 Sept 2010	Level 1 assessments carried out on buildings along the main arterial routes.
	Midday – Level 1 rapid assessments completed in the CBD.
	Level 2 assessments begin on priority buildings in the CBD.
	11.24pm – magnitude 5.2 aftershock.
	11.40pm – magnitude 5.4 aftershock.
7 Sept 2010	3.24am – magnitude 5.4 aftershock.
8 Sept 2010	7.49am – magnitude 5.1 aftershock.
9 Sept 2010	Project East (residential building assessments) begins.
10 Sept 2010	CBD cordon lifted.
	Christchurch City Council Earthquake-prone, Dangerous and Insanitary Buildings Policy 2010 adopted.
12 Sept 2010	EOC begins move back to Hereford Street Civic Offices.
13 Sept 2010	Building Recovery Office (BRO) established.
14 Sept 2010	Canterbury Earthquake Response and Recovery Act 2010 receives Royal Assent.
16 Sept 2010	Midday – state of local emergency ends.
	Canterbury Earthquake (Building Act) Order 2010 takes effect.
20 Sept 2010	Building Evaluation Transition Team (BETT) established.
4 Oct 2010	10.21pm – magnitude 5.0 aftershock.
5 Oct 2010	BETT audit of all yellow and red placarded commercial buildings begins.
13 Oct 2010	4.42pm – magnitude 5.0 aftershock.
19 Oct 2010	11.32am – magnitude 5.1 aftershock.
20 Oct 2010	BETT audit of commercial buildings completed.
28 Nov 2010	BETT and BRO functions merged to form new BRO.
1 Dec 2010	BRO case management begins.
26 Dec 2010	10.30am – 4.9 magnitude aftershock.
	EOC established at Hereford Street Civic Offices.
	Police Cordon established.
	Rapid assessments begin in CBD.
28 Dec 2010	Rapid assessments completed in CBD.
20 Jan 2011	6.03am – magnitude 5.1 aftershock.
22 Feb 2011	12.51pm – magnitude 6.3 aftershock.

APPENDIX 2

CIVIL DEFENCE EMERGENCY FRAMEWORK

CIVIL DEFENCE EMERGENCY FRAMEWORK

1. This Appendix outlines the Civil Defence Emergency framework in order to explain the various positions, groups, functions and roles under the Civil Defence Emergency Management Act 2002 (**CDEMA**). These positions or groups involve:
 - (a) Minister of Civil Defence;
 - (b) National Director of Civil Defence Emergency Management;
 - (c) National Controller;
 - (d) Civil Defence Emergency Management Group;
 - (e) Group Controller;
 - (f) Local Controllers.
2. In outlining the Civil Defence Emergency framework reference will be made to the following:
 - (a) The CDEMA;
 - (b) The Canterbury CDEMG Plan (**Plan**);
 - (c) The Christchurch City Civil Defence Emergency Management Arrangements (**Christchurch City Arrangements**)

Minister's power of direction

3. The Minister of Civil Defence is at the top of the organisational structure. Section 84 gives the Minister broad powers of direction:

"(2) ... the Minister may direct the Director or any Civil Defence Emergency Management Group or person—

 - (a) to perform or exercise any of the functions, duties, or powers conferred on that person or Group under this Act; or
 - (b) to cease to perform or exercise any of the functions, duties, or powers conferred on that person or Group under this Act."

Powers of the National Director and National Controller

4. The Director of Civil Defence Emergency Management (**National Director**) has a broad range of powers under sections 8 and 9 of the CDEMA. The National Director can delegate many of these powers to the National Controller.
5. During a state of local emergency, the National Director's powers are limited. However, the National Director does have powers in relation to coordinating

planning, preparation, co-ordination, and carrying out of civil defence emergency management (section 9(2)(i) of the CDEMA).

National CDEM Strategy and National Plan

6. The Ministry of Civil Defence and Emergency Management (**Ministry**) has prepared a National Civil Defence Emergency Management Strategy ("**National CDEM Strategy**") under section 31 of the CDEMA. The National CDEM Strategy sets out the Crown's CDEM goals, policy objectives and measurable targets.
7. The Ministry has also prepared a National Civil Defence Emergency Management Strategy Plan ("**National CDEM Plan**") that sets out the CDEM arrangements necessary at the national level to manage nationally significant hazards and risks and the coordination of CDEM during a period of national emergency. It also provides a basis for local planning for national emergency response organisations. The National CDEM Plan is contained in the Schedule to the National Civil Defence Emergency Management Plan Order 2005. This Plan was not implemented following the September 2010 earthquake.

Statutory functions and powers of the CDEMG, Group Controller and Local Controllers during a state of local emergency

CDEMG

8. Section 12 of the CDEMA requires every regional council and every territorial authority within that region to establish a CDEMG for the region.
9. Section 13(1) of the CDEMA provides that every local authority must be a member of a CDEMG. Section 13(4) sets out the representation requirements for each member of the CDEMG:

"Each local authority that is a member of a Group with other local authorities must be represented on the Group by 1, and only 1, person, being the mayor or chairperson of that local authority or an elected person from that local authority who has delegated authority to act for the mayor or chairperson."

Functions

10. Section 17 of the CDEMA outlines the functions of a CDEMG. Section 17 is as follows:

"The functions of a Civil Defence Emergency Management Group, and of each member, are to—

- (a) *in relation to relevant hazards and risks,—*
 - (i) *identify, assess, and manage those hazards and risks:*
 - (ii) *consult and communicate about risks:*
 - (iii) *identify and implement cost-effective risk reduction:*

- (b) *take all steps necessary on an ongoing basis to maintain and provide, or to arrange the provision of, or to otherwise make available suitably trained and competent personnel, including volunteers, and an appropriate organisational structure for those personnel, for effective civil defence emergency management in its area:*
 - (c) *take all steps necessary on an ongoing basis to maintain and provide, or to arrange the provision of, or otherwise to make available material, services, information, and any other resources for effective civil defence emergency management in its area:*
 - (d) *respond to and manage the adverse effects of emergencies in its area:*
 - (e) *carry out recovery activities:*
 - (f) *....:*
 - (g) *....:*
 - (h) *....:*
 - (i) *develop, approve, implement, and monitor a civil defence emergency management group plan and regularly review the plan:*
 - (j) *....:*
 - (k) *....*
- (2) *A Group also has any other functions that are conferred or imposed by or under this Act or any other enactment."*

Powers and obligations

11. Section 18 sets out the general powers of the CDEMG:

- "(1) *A Civil Defence Emergency Management Group has all the powers that are reasonably necessary or expedient to enable it to perform its functions, including the power to delegate any of its functions to members, the Group Controller, or other persons.*
- (2) *Without limiting the generality of subsection (1), a Group may—*
- (a) *recruit and train volunteers for civil defence emergency management tasks:*
 - (b) *conduct civil defence emergency management training exercises, practices, and rehearsals:*
 - (c) *issue and control the use of signs, badges, insignia, and identification passes authorised under this Act, regulations made under this Act, or any civil defence emergency management plan:*

- (d) *provide, maintain, control, and operate warning systems:*
- (e) *provide communications, equipment, accommodation, and facilities for the exercise of its functions and powers during an emergency:*
- (f) *exercise any other powers that are necessary to give effect to any civil defence emergency management plan."*

12. Section 18(1) of the CDEMA provides for the CDEMG to delegate its functions, including to the Council as a member, to the Group Controller, or other persons. The Canterbury CDEM Group Plan states (section 6, page 3, part 6.2(e)) that the Group has delegated power under section 85 to the Local Controllers. The Plan states that this delegation was approved by the Joint Committee/Group on 22 April 2005. These powers were also delegated to the Group Controller – see page 1, section 6.1(e).

13. Part 5 of the CDEMA sets out the powers in relation to a Civil Defence Emergency. Section 85 sets out the emergency powers of the CDEMG. It provides:

"(1) *While a state of emergency is in force in its area, a Civil Defence Emergency Management Group may -*

- (a) *carry out or require to be carried out all or any of the following:*
 - (i) *works:*
 - (ii) *clearing roads and other public places:*
 - (iii) *removing or disposing of, or securing or otherwise making safe, dangerous structures and materials wherever they may be:*
- (b) *provide for the rescue of endangered persons and their removal to areas of safety:*
- (c) *set up first aid posts, and provide for first aid to be given to casualties and for their movement to hospital, other place of treatment, or areas of safety:*
- (d) *provide for the relief of distress, including emergency food, clothing, and shelter:*
- (e) *provide for the conservation and supply of food, fuel, and other essential supplies:*
- (f) *prohibit or regulate land, air, and water traffic within the area or district to the extent necessary to conduct civil defence emergency management:*
- (g) *undertake emergency measures for the disposal of dead persons or animals if it is satisfied that the*

measures are urgently necessary in the interests of public health:

- (h) disseminate information and advice to the public:*
- (i) enter into arrangements, including employment arrangements, with any person for the purpose of carrying out civil defence emergency management as may be agreed:*
- (j) provide equipment, accommodation, and facilities for the exercise of any of the powers conferred by this subsection.*

- (2) A Civil Defence Emergency Management Group must not act inconsistently with any directions given by the Minister or the Director."*

Civil Defence Emergency Management Co-ordinating Executive Group (CEG)

- 14. Under section 20 of the CDEMA, a CDEMG must establish and maintain a CEG. The CEG is made up of Chief Executives from each local authority (or persons acting on a Chief Executive's behalf); a senior member of the Police who is assigned for the purpose by the Commissioner of Police; a senior member of the Fire Service who is assigned for the purpose by the National Commander; and the Chief Executive of the hospital and health services operating in the area (or a person acting on the Chief Executive's behalf). The CEG supports the CDEMG by providing advice and assisting in response and recovery.

Group Controller

- 15. Under section 26 of the CDEMA, a CDEMG must appoint, either by name or by reference to the holder of an office, a suitably qualified and experienced person to be the Group Controller for its area.
- 16. Section 28 provides the functions of the Group Controllers. It states:
 - "(1) The Group Controller must, during a state of local emergency for the area for which the Group Controller is appointed, direct and co-ordinate, for the purposes of this Act, the use of the personnel, material, information, services, and other resources made available by departments, Civil Defence Emergency Management Groups, and other persons.*
 - (2) The Group Controller must also perform any functions or duties delegated to the Group Controller by the Civil Defence Emergency Management Group or conferred on Controllers by this Act or any other enactment, and may exercise any power conferred on the Group Controller by delegation under this Act.*
 - (3) A Group Controller or person directed under section 27 may authorise any suitably qualified and experienced person to*

exercise any power or function or fulfil any duty of that Group Controller or directed person, including the power to authorise the use of those powers, functions, and duties.

- (4) *No Group Controller or person directed under section 27 may exercise any power conferred on Controllers by this Act during any state of national emergency in any manner contrary to any priorities for the use of resources and services that have been determined by the Director or National Controller."*

17. Section 28(1) provides broad functions to the Group Controller during a state of local emergency.
18. Section 28(3) provides the power for the Group Controller or a Local Controller to authorise a suitably qualified and experienced person to exercise their powers under the CDEMA.

Local Controllers

19. Section 27 provides for the CDEMG to appoint one or more persons as a Local Controller, and direct that person or persons to carry out any of the functions or duties of that Group's Group Controller, and exercise the powers of controllers, including under sections 86-94 of the CDEMA.

20. Section 27(2) then provides a limit on the ability of the Local Controller to exercise powers as follows:

"Despite anything in subsection (1), the Local Controller must follow any directions given by the Group Controller during an emergency."

21. Sections 86-92 contain further powers, that can be exercised by a Controller or constable, or a person acting under the authority of a Controller or constable while a state of emergency is in force in the area. As an example, section 91 provides:

"While a state of emergency is in force, a Controller or a constable, or any person under the authority of a Controller or constable may –

- (a) *direct any person to stop any activity that may cause or substantially contribute to an emergency:*
- (b) *request any person, either verbally or in writing, to take any action to prevent or limit the extent of the emergency."*

22. Section 86 provides:

"If a state of emergency is in force and, in the opinion of a Controller or any member of the police, the action authorised by this section is necessary for the preservation of human life, that person or a person authorised by him or her may require, within the area or district in which the emergency is in force,—

- (a) *the evacuation of any premises or place, including any public place; or*

- (b) *the exclusion of persons or vehicles from any premises or place, including any public place."*

23. Section 92 provides:

"While a state of emergency is in force, a Controller or a member of the police, or any person acting under the authority of a Controller or member of the police, may examine, mark, seize, sample, secure, disinfect, or destroy any property, animal, or any other thing in order to prevent or limit the extent of the emergency."

Statutory functions and powers of the Council during a state of local emergency

24. As indicated below the Christchurch City Council is a member of the Canterbury CDEMG. Section 13(4) of the CDEMA states that the Council's representative on the CDEMG will be the mayor or other person who has delegated authority to act for the mayor.

25. In addition to being a member of the CDEMG, the duties of the Council under the CDEMA are set out in section 64:

"(1) A local authority must plan and provide for civil defence emergency management within its district.

(2) A local authority must ensure that it is able to function to the fullest possible extent, even though this may be at a reduced level, during and after an emergency."

26. Under section 64(2) of the CDEMA, the Council has a duty to function to the fullest possible extent. Section 64(2) relates to business as usual functions of the Council.

CANTERBURY CIVIL DEFENCE EMERGENCY MANAGEMENT GROUP

27. The local authority members of the Canterbury CDEMG are:

- (a) Ashburton District Council;
- (b) Christchurch City Council (including the previous Banks Peninsula District Council);
- (c) Environment Canterbury;
- (d) Kaikoura District Council;
- (e) Hurunui District Council;
- (f) Mackenzie District Council;
- (g) Selwyn District Council;
- (h) Timaru District Council;
- (i) Waimate District Council; and
- (j) Waimakariri District Council.

28. The area covered by the CDEMG is shown in Figure 1.1 of the Canterbury Civil Defence Emergency Management Group Plan 2005-2010. The Group area extends to the northern boundaries of Kaikoura and Hurunui Districts, to the west along the boundary with the West Coast Region/CDEMG area, to the south by the southern boundaries of Mackenzie and Waimate Districts, and by the Pacific Ocean to the East.

Canterbury Civil Defence Emergency Management Group Plan 2005-2010

29. Under section 17(1)(i) and section 48, a CDEMG is required to:

"develop, approve, implement, and monitor a civil defence emergency management group plan and regularly review the plan."

30. The Canterbury Civil Defence Emergency Management Group Plan 2005-2010 (Canterbury CDEMG Plan) was approved by the Canterbury CDEMG Joint Committee on 22 April 2005.
31. The Canterbury CDEMG Plan was operative for a five year period from 22 April 2005. However, under section 55 of the CDEMA, if the plan is not replaced before the close of the operative period, the plan continues in force until replaced.¹

Relationship to National CDEM Strategy, National CDEM Plan and other Plans

32. Section 53(1) of the CDEMA states that the CDEMG Plans must not be inconsistent with the National CDEM Strategy. Section 53(2) states that the CDEMG Plan must also take into account the guidelines, codes, or technical standards issued by the National Director.

CDEMG Structure

33. The Canterbury CDEMG Plan sets out further detail about positions, appointments and relationships with other key groups in emergency management. The key features of the Canterbury CDEMG governance structure will now be set out.

CDEMG Joint Committee

34. As discussed above, the governance of the Group is provided by a joint committee of elected representatives from all of the local authorities in the CDEMG Area. This CDEMG Joint Committee is a joint standing committee established under clause 30(1)(b) of Schedule 7 of the Local Government Act 2002, and is made up of political representatives from each of the 10 local authorities in the Group's area. This Joint Committee exercises governance and determines Group CDEM policy.
35. The Christchurch City Council's representative on the Canterbury CDEMG Joint Committee was Councillor Bob Shearing until the local government elections held in October 2010. The Council's representative following the local government elections became Councillor Helen Broughton. The Canterbury CDEMG Joint Committee has not met since the elections in October 2010 (as at 31 July 2011).

Coordinating Executive Group (CEG)

36. The CDEMG maintains relationships with a wide range of partner organisations. The primary partners are those with membership on the CEG

¹ The CDEMG Plan had been under review for some months and the Group had reached the stage of assessing feedback on a draft new plan.

established according to section 20 of the CDEMA. The representative members that form the CEG are chief executives or senior officers of their respective organisations in Canterbury.

37. The CEG supports the CDEMG Joint Committee. The CEG implements relevant decisions of the CDEMG Joint Committee, and provides the joint committee with strategic advice, and assists with the all-agency partnership approach to emergency management in Canterbury.
38. The Christchurch City Council's representative on the Canterbury CDEMG CEG is Jane Parfitt (General Manager, City Environment) and the alternate member is Murray Sinclair (CDEM & Rural Fire Manager).

CDEM Group Controller

39. The Plan details the appointment of the CDEMG Controller.
40. The Plan states that the CDEMG Joint Committee has appointed a Group Controller and Alternate Group Controllers in accordance with section 26 and 27 of the CDEMA.
41. The Plan records that the Group Controller for the CDEMG area is Robert N Upton. However, Mr Upton was not in New Zealand on 4th September 2010, so John Talbot (an Alternate Group Controller, as stated below) assumed the Group Controller role.
42. The Plan records that Alternate Group Controllers have been appointed by the CDEMG Joint Committee to act as the Group Controller in the event of a vacancy in the office of Group Controller, or on occasions when the Group Controller is absent, including when the Group Controller is resting between shifts during an emergency and when the Group Controller otherwise delegates their functions and powers to an Alternate Group Controller. The Alternate Group Controllers in September 2010 were John Talbot, Jon Mitchell and Ken Taylor.
43. The Plan records at (Section 6, page 1, 6.1) that the CDEMG Joint Committee has delegated to the Group Controller authority to exercise the powers of section 85 of the CDEMA, in addition to the powers assigned to Controllers by sections 86 to 94 of the CDEMA.

Local Controllers

Appointment of Local Controllers

44. In accordance with Section 27 of the CDEMA and the Canterbury CDEMG Plan, the following persons have been appointed as Local Controllers for Christchurch City:
 - (a) Jane Parfitt, General Manager, City Environment;
 - (b) Peter Mitchell, General Manager, Regulation & Democracy Services;
 - (c) Michael Aitken, General Manager Community Services; and
 - (d) Kevin Locke, General Manager, Capital Programme.
45. The Canterbury CDEMG Plan states that alternate Local Controllers are to be appointed to act as Local Controller in the event of a vacancy in the office of

Local Controller on occasions when the Local Controller is absent, including when the Local Controller is resting between shifts during an emergency and when the Local Controller otherwise delegates their function and powers to an Alternate Local Controller. The Alternate Local Controllers following the 4th September 2010 earthquake were Clive Manley, Mike Mendoza and Darryl Griffins.

Delegated authority

46. The Canterbury CDEMG Plan states at page three of section 6 that:

"The CDEM Group Joint Committee delegates to each Local Controller authority to exercise the powers of the CDEM Act s85. This is in addition to the powers assigned to the Controllers by sections 86 to s94 of the CDEM Act, for the part of the CDEM Group area for which the Local Controller has been appointed."

47. The Canterbury CDEMG Plan states that under section 27 of the CDEMA, the CDEMG directs that the Local Controllers, during a state of emergency for the part of the CDEMG area for which they are appointed, must direct and coordinate the use of personnel, materials, information, services, and other resources made available by departments, CDEMGs, and other persons.

48. Other Local Controller functions include:

- (a) acting on behalf of and as an advisor to the Group Controller;
- (b) participating in the development, delivery and maintenance of effective CDEM response structures and systems.

Group Emergency Coordination Centre (ECC)

49. The Plan records that the Group ECC is the main facility from which the response to emergencies (declared or otherwise) is coordinated at a regional level in Canterbury. The ECC is located at and provided for by Environment Canterbury under its Service Level Agreement with the CDEMG Joint Committee.

50. The CEG and its various committees provide the basis for coordination and liaison at a Group level.

51. The Group ECC and Local EOCs provide facilities to manage and support the overall response to an emergency event. The distinction between the Group ECC and Local EOCs is that the Group ECC provides a higher level of response coordination, with a focus on prioritising and coordinating the use of scarce response resources.

52. The Canterbury CDEMG Plan provides that the role of the CDEMG ECC is to:

- (a) coordinate and/or support activated Local EOCs;
- (b) receive, assess and disseminate information for emergency response agencies;

- (c) where possible, provide logistical support when requested by a Local EOC or agencies responding at a regional level;
- (d) ensure major emergency response agencies are involved in the Group response, that the major support agencies have liaison officers available in the ECC, and that regional-level decision makers are involved and integrated into response planning and delivery;
- (e) ensure communications are in place with key regional response agencies and provide a link from those agencies to Local EOCs;
- (f) receive, assess and disseminate information about lifeline utility services through a Lifelines Coordination Centre within the ECC;
- (g) coordinate public information, media liaison and public inquiry services across the response;
- (h) initiate disaster recovery processes, with particular emphasis on engaging the participation of regional and central government organisations with recovery responsibilities and/or resources;
- (i) report to and act as a conduit for information to and from Central Government, via-the NCMC;
- (j) coordinate and manage international assistance to responses locally or elsewhere in New Zealand;
- (k) coordinate the systematic planning, collection, analysis and communication of impact assessment information from member authorities, partner organisations and by other means as appropriate to the event.

Local Emergency Operations Centres (EOCs)

- 53. Under the Canterbury CDEMG Plan, each Canterbury territorial authority has to maintain a primary EOC from which local emergency events will be able to be coordinated and directed. Each territorial authority had to have arrangements in place to be able to relocate their EOC to an alternate site, either within the territorial authority area or nearby. These alternate sites could be tiered with regard to their size, resources, communication modes and so on.
- 54. The Canterbury CDEMG Plan states that the EOC must have sufficient suitably trained and experienced personnel to provide for two full shifts. Staff of the respective territorial authorities, augmented by members of partner organisations and CDEM volunteers, are to provide the core of these personnel.
- 55. The Canterbury CDEMG Plan outlines that the role of each EOC is to:
 - (a) coordinate the response of local emergency response agencies within the area of the EOC;
 - (b) arrange, coordinate and systematically manage logistics; systematically monitor events and escalate/de-escalate response as required;

- (c) ensure local emergency response agencies are involved in the local response, and emergency response agency liaison officers are available and supported in the EOC;
- (d) ensure communications are in place with key local response agencies; arrange for community welfare and support facilities and services;
- (e) receive, assess and disseminate information for local emergency response agencies;
- (f) coordinate, with partner organisations, the provision of information about the event and the local response to the public and media; communicate and coordinate with other EOCs and partner organisations; coordinate the initiation of Disaster Recovery arrangements and maintain close communication with the Recovery Office once established; communicate regularly with the Group Controller and ECC;
- (g) coordinate the systematic planning, collection, analysis and communication of local impact assessment information.

Location of the EOC

- 56. The Christchurch City Arrangements (discussed further below) state that the Christchurch City EOC is located at the Christchurch City Council's Civic Offices, 163 Tuam Street, Christchurch. The alternative location for the Christchurch City EOC is the Christchurch Art Gallery, at the corner of Gloucester and Montreal Streets.
- 57. In practice, the EOC was moved to the alternative location of the Art Gallery as both the Tuam Street and Hereford Street Civic Buildings were deemed unsafe.

Appointment and development of ECC/EOC personnel

- 58. The Canterbury CDEMG Plan states that Group and Local EMOs, in conjunction with the respective Controller(s), must appoint primary and, ideally two, alternate personnel to the key CIMS Incident Management Team functions for their ECC/EOC.
- 59. The Canterbury CDEMG Plan outlines that the key ECC/EOC appointments are:
 - (a) Operations Manager;
 - (b) Planning Intelligence Manager;
 - (c) Logistics Manager;
 - (d) Public Information Manager;
 - (e) Community Welfare Manager;
 - (f) Recovery Manager.

CHRISTCHURCH CITY CIVIL DEFENCE EMERGENCY MANAGEMENT ARRANGEMENTS

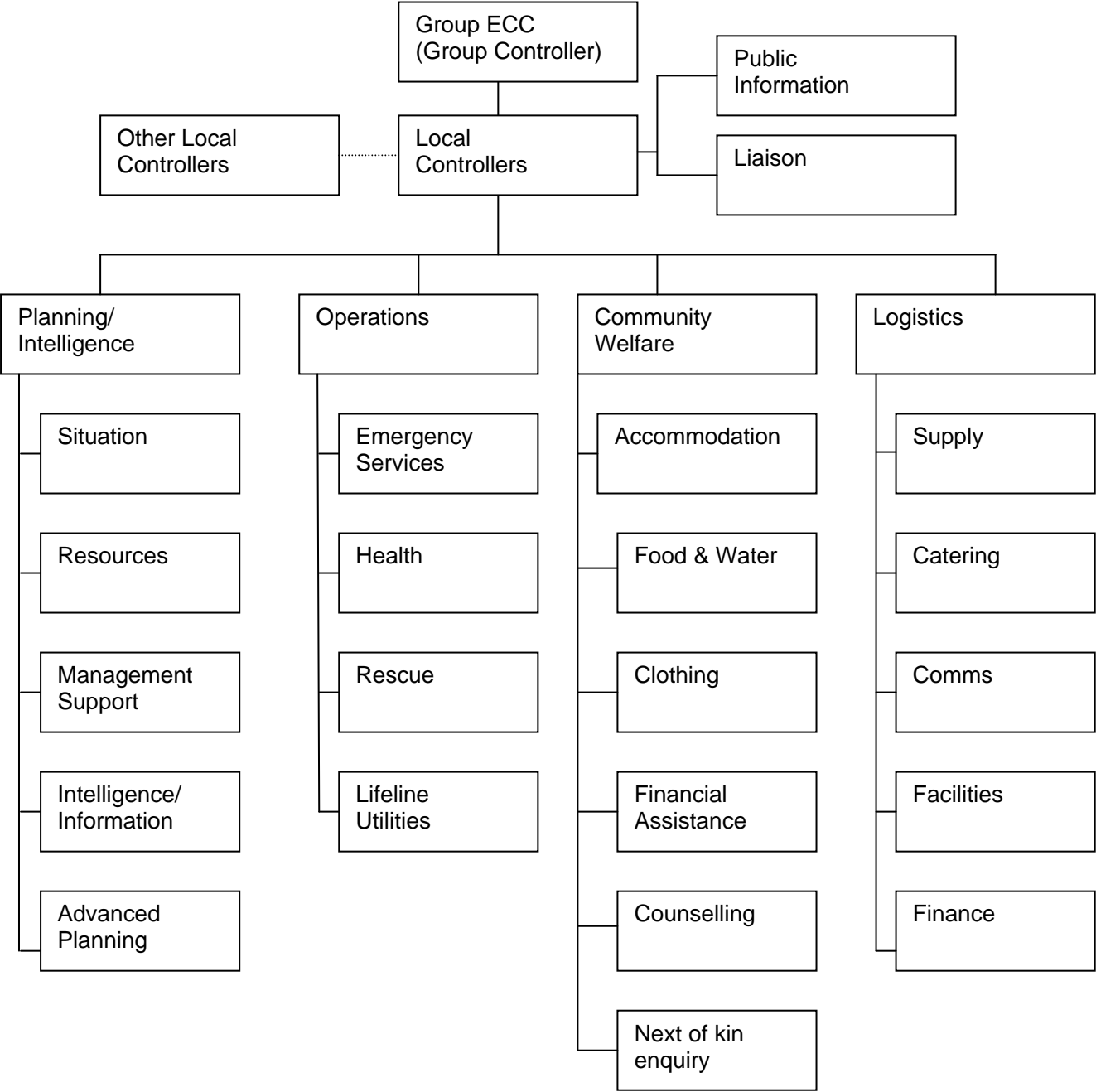
- 60. The Canterbury CDEMG members decided that each partner local authority should prepare Local CDEM Arrangements. To provide for a fully integrated planning framework across the entire Canterbury Region it was further decided that those Local Arrangements should be incorporated into the CDEMG Plan.

61. The features of the Christchurch City Arrangements are outlined below.

Incident Management Structure

62. The Christchurch City Arrangements record that all the actions during the response phase of an emergency will follow the Coordinated Incident Management System (CIMS) principles. The Christchurch City EOC is organised under the CIMS framework as shown in the diagram below. During the state of emergency in September 2010 the Rescue Manager reported directly to the Local Controller, rather than to the Operations Manager as shown in the diagram.

Incident Management Structure (from Christchurch City Arrangements p 24)



Christchurch City Council Emergency Management Team

63. The Council has an Emergency Management Team that is responsible for ensuring the Council meets the requirements of the CDEMA, in particular section 64 that states:

"(1) A local authority must plan and provide for civil defence emergency management within its district.

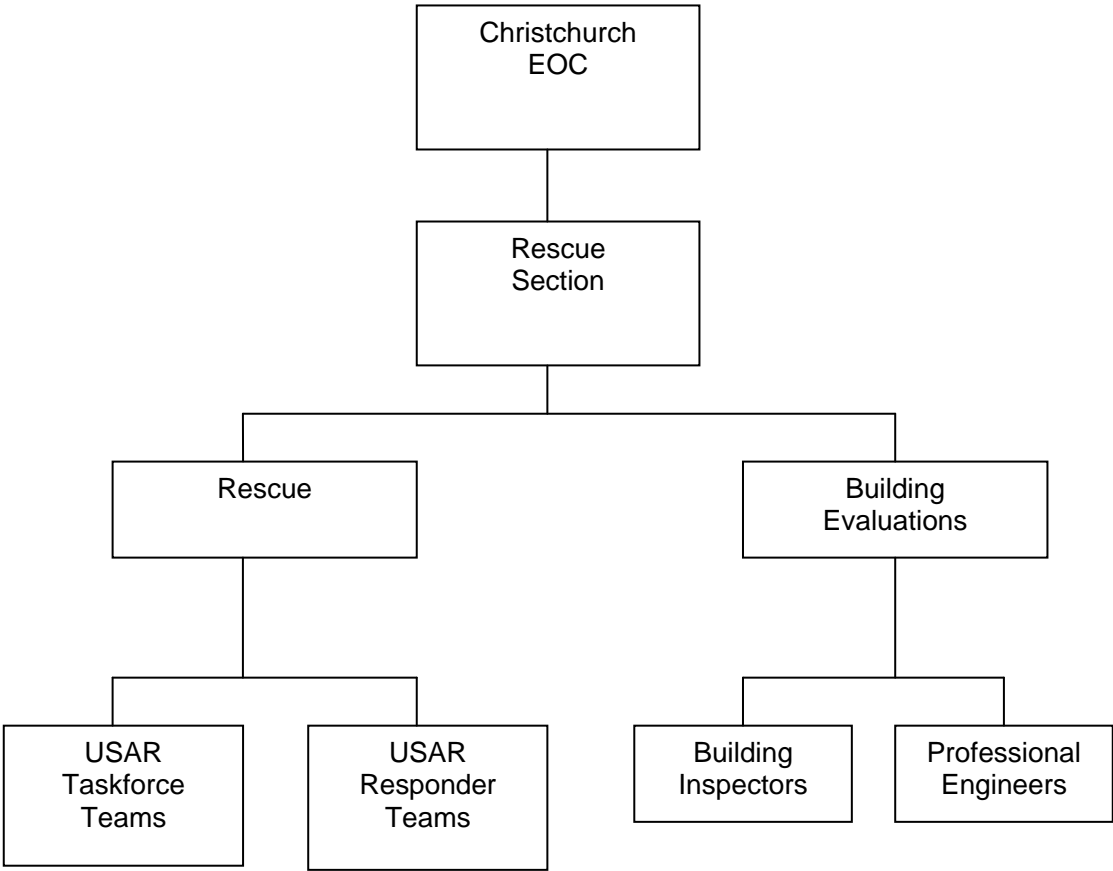
(2) A local authority must ensure that it is able to function to the fullest possible extent, even though this may be at a reduced level, during and after an emergency.."

64. The CCC Emergency Management Team is made up of the following:

- (a) Local Controllers (Chair);
- (b) CDEM & Rural Fire Manager;
- (c) Chief Engineer;
- (d) Rescue (Building Evaluation) Manager;
- (e) Recovery Managers;
- (f) Environmental Health Officer;
- (g) Communications Adviser;
- (h) City Care and Fulton Hogan Representatives;
- (i) Principal Rural Fire Officer;
- (j) Emergency Management Adviser.

65. The responsibility for the Building Evaluation Team rests with the Rescue Manager, as set out in the diagram below. For this reason the Rescue Manager was also referred to as the Building Evaluation Manager during the state of emergency. "Rescue" is primarily a function of the New Zealand Fire Service.

Christchurch Rescue Structure



APPENDIX 3

HOW THE NZSEE GUIDELINES EVOLVED/PREVIOUS USE

HOW THE NZSEE GUIDELINES EVOLVED/PREVIOUS USE

1. This Appendix provides a summary of the history of the Building Safety Evaluation During a State of Emergency Guidelines for Territorial Authorities (**NZSEE Guidelines or Guidelines**) and their main features.
2. The first edition of the Guidelines was produced by the NZSEE in January 1998.
3. In August 2009, a second edition of the Guidelines was prepared by the NZSEE with support from the Department of Building and Housing and Ministry of Civil Defence and Emergency Management.¹
4. The experiences and learnings from the rapid structural safety evaluation of buildings following the 20 December 2007 earthquake in Gisborne assisted in preparing the second edition.
5. The key areas of change were:²
 - (a) Updating of references to relevant legislation ie. Civil Defence Emergency Management Act 2002 and Building Act 2004;
 - (b) Clarification that the building safety evaluation procedures are to be applied under the direction of a Controller (appointed under the Civil Defence Emergency Management Act 2002) during a state of emergency (this addresses issues of liability, including for volunteering professionals);
 - (c) Change from the four placard system to the original US three placard system (ie. Green – *Inspected*; Yellow – *Restricted Access* and Red – *Unsafe*).

THE MAIN FEATURES OF THE SYSTEM

6. The Guidelines outline the primary aims of the document as being.³
 - (a) To provide territorial authorities with guidance to prepare for and manage effectively a process of structural safety evaluations of damaged buildings;
 - (b) To focus on the rapid assessment of buildings to be carried out during the period of a state of emergency declared under the CDEMA;
 - (c) to prepare the building industry personnel to participate in the process – including structural and civil engineers, building control officials, architects and building contractors.

¹ New Zealand Society for Earthquake Engineering, Building Safety Evaluation During a State of Emergency Guidelines for Territorial Authorities, August 2009, page 3. John Buchan from the Christchurch City Council was on the NZSEE Committee which developed the Guidelines.

² Page 5.

³ Page 5.

7. The Guidelines state that the building safety evaluation procedures are to be applied under the direction of the controller appointed under the CDEMA during a state of emergency, to address issues of liability for volunteering professionals.⁴
8. During the state of emergency, the persons carrying out inspections need authorisation from the controller to:⁵
 - (a) carry out inspections;
 - (b) issue placards;
 - (c) require evacuation and/or limit entry to buildings and place.
9. The Guidelines anticipate that inspections require mobilisation of all available inspection resources and the co-ordination of additional resources from other areas.⁶
10. Appendix F of the Guidelines contains a “Memorandum of Understanding for Engineers Volunteering to Assist Territorial Authorities in a State of Emergency”. The purpose of the Memorandum is to provide standard agreement conditions for the volunteer engineers carrying out the rapid assessments. The Guidelines include a protocol that people can volunteer for three days, but after this time work should be paid.⁷
11. The Guidelines’ focus is on the period from when the initial reconnaissance by emergency services and the territorial authority (to determine the extent of the problem and areas of major concern have been identified) has been completed, until the state of emergency declaration is lifted.⁸
12. The Guidelines set out a two stage building safety evaluation process consisting of an initial Level 1 Rapid Assessment and a more detailed Level 2 Rapid Assessment. The focus is on immediate public safety, and not the provision of an engineering assessment service to building owners.⁹
13. Important short-term aims for inspections include¹⁰:
 - (a) safe use of streets adjacent to damaged buildings;
 - (b) safe occupation of buildings for:
 - continued use, especially emergency facilities
 - minimisation of impact on commercial activity
 - minimisation of displacement of people;
 - (c) assessment of the need for temporary works such as shoring, temporary securing and making safe;
 - (d) saving property from unnecessary demolition
 - conserving heritage fabric
 - minimising economic impact for the owners and community.

⁴ Page 5.

⁵ Page 15.

⁶ Page 10.

⁷ Page 19.

⁸ Page 6.

⁹ Page 6.

¹⁰ Page 8.

14. The Guidelines are not intended to cover non-structural damage that does not pose a risk to human life.¹¹ More detailed engineering evaluations are considered to be part of the disaster recovery phase, usually undertaken by engineers contracted by the building owners.¹²

Level One Assessments

15. The Guidelines state that Level One assessments may be undertaken by teams comprising building control officers, structural and civil engineers, architects, experienced building contractors, and other suitably experienced building professionals.¹³
16. Level One assessments involve the following steps¹⁴:
- (a) identifying the building;
 - (b) assessing the current building structural damage by external observation only;
 - (c) noting any other observed non-structural hazards for follow up assessment by others;
 - (d) recommending further detailed inspections if appropriate;
 - (e) recording site details for the database;
 - (f) assigning a placard according to the severity of damage that can be seen;
 - (g) fixing the appropriate placards at all entrances;
 - (h) placing barrier tape to stop access into a building assessed as unsafe (red placard), and directing the cordoning off of adjacent areas with barrier tape where there is danger from collapse; and
 - (i) providing an information sheet on the state of the building to the building owner, if possible, where access needs to be restricted.
17. The Level One assessment will result in one of the following placards being issued:¹⁵
- (a) Inspected - GREEN
 - (b) Restricted use - YELLOW
 - (c) Unsafe - RED
18. The Guidelines state that where a restriction applies to part of a building or a specific tenancy within a building only, the extent of the restriction must be stated on the yellow placard that is posted. Further actions to reduce danger in and around the building may be identified, and the assessors may cordon off some areas or recommend that either a Level 2 Rapid Assessment or a Detailed Engineering Evaluation be carried out.¹⁶
19. The Guidelines also provide guidance on how best to accurately identify buildings as identification of buildings can often be difficult. The Guidelines suggest that the inspector records the official address on the inspection sheet, but also that any observed variance such as what the building is 'also known as' or the building name is recorded.¹⁷

¹¹ Page 6.

¹² Page 10.

¹³ Page 10.

¹⁴ Page 10.

¹⁵ Page 10.

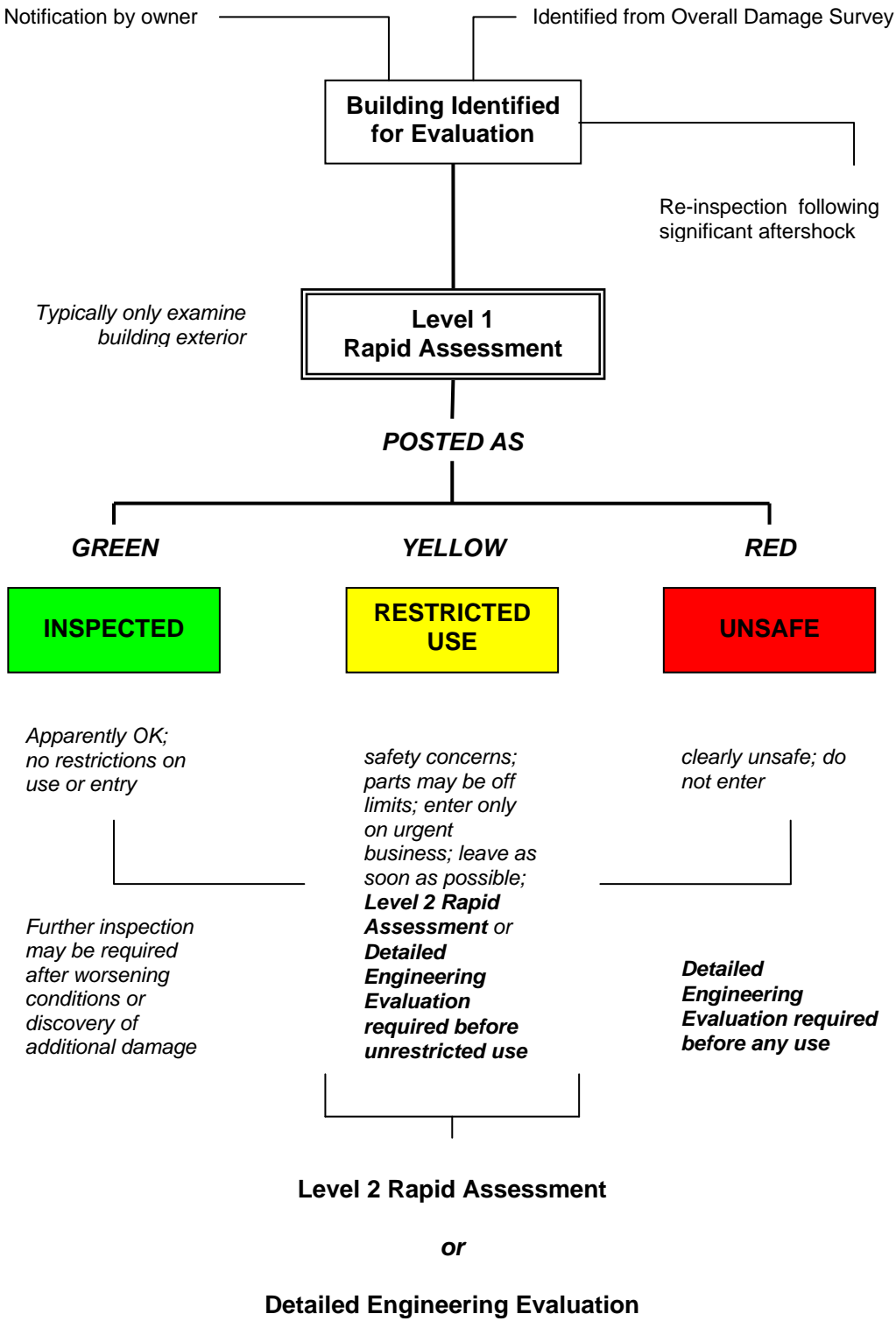
¹⁶ Page 10.

¹⁷ Page 14.

20. The Guidelines state that an "other ID" field to physically describe the position of a building where there is more than one building on a property would be helpful.¹⁸ The Guidelines also suggest that the inspectors take a photograph of the building with the placard posted to aid with future identification and future monitoring over time.¹⁹
21. A flow chart summarising the Level 1 Rapid Assessment and Posting Process is set out on page 11 of the Guidelines and is set out below:

¹⁸ Page12.

¹⁹ Page 12.

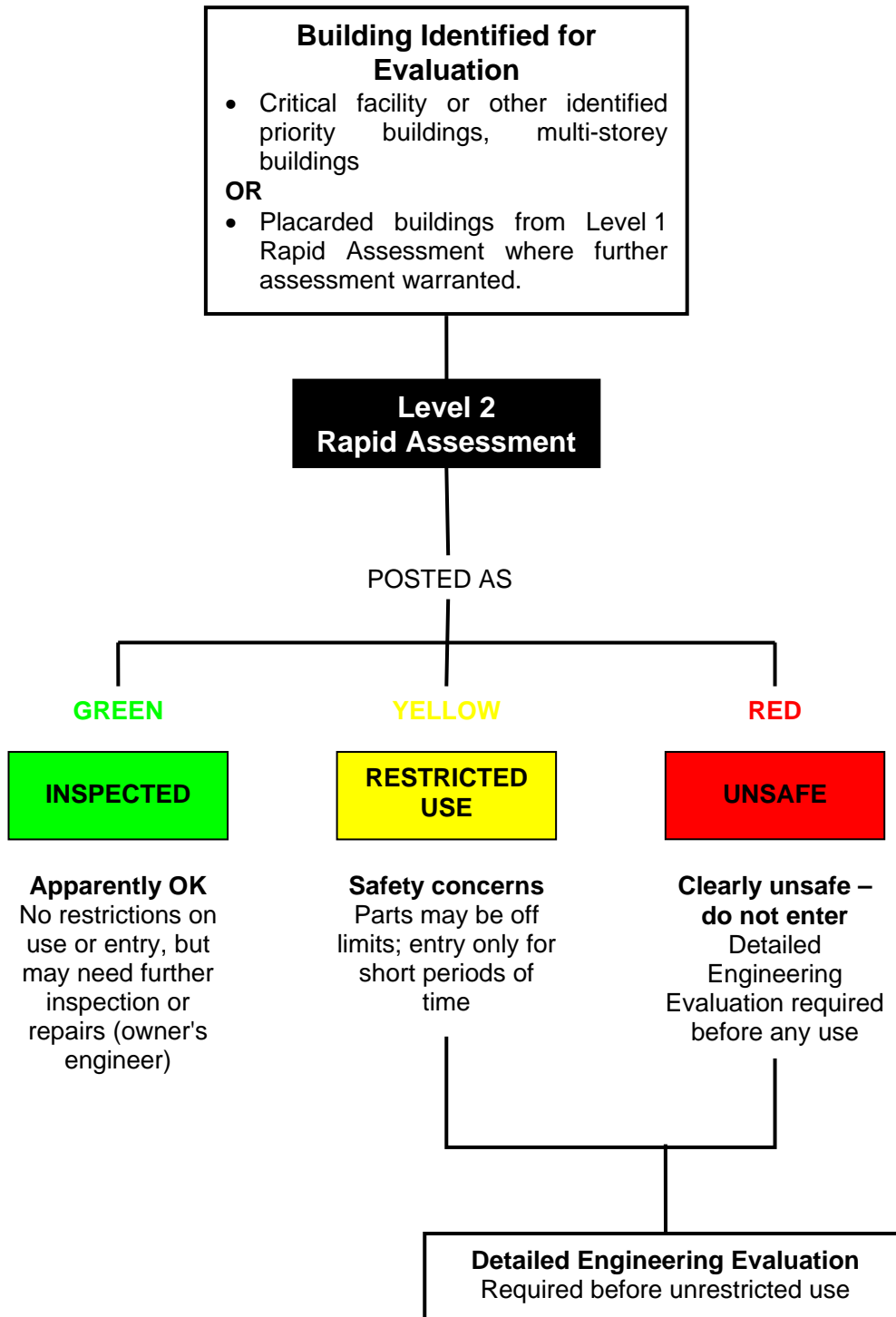


Level Two Assessments

22. The Guidelines indicate that a Level 2 assessment should be performed on all critical facility buildings, and large, typically multi-storey buildings, and on any other buildings where the Level 1 Rapid Assessment identifies the need for further and more specific inspection. Structural and building services engineers must carry out Level 2 Rapid Assessments of multi-storey buildings, supplemented as required by geotechnical engineers.²⁰
23. The Level 2 assessment may result in a revised placard. The Guidelines note that the assessing teams may also make recommendations for work to be done under urgency where there is a need to demolish or secure the structure to ensure the safety of the public or to protect adjacent property.²¹
24. A flow chart summarising the Level 2 Rapid Assessment and Posting Process is set out on page 13 of the Guidelines and is reproduced below:

²⁰ Page 12.

²¹ Page 12.



Sections Four and Five

25. Section 3 of the Guidelines deals with the management and administration of the rapid assessment process. Sections 4 to 5 of the Guidelines deal with planning before the event and training modules. These sections are not further discussed in the Report.

APPENDIX 4

CHRISTCHURCH EQ RAPID ASSESSMENT FORM – LEVEL 1

Christchurch Eq. RAPID Assessment Form - LEVEL 1

Inspector Initials
Territorial Authority

Christchurch City

Date of Inspection
Time

Exterior Only
Exterior and Interior

Building Name

Short Name

Address

GPS Co-ordinates

S°

E°

Contact Name

Contact Phone

Storeys at and above
ground levelBelow ground
levelTotal gross floor area
(m²)Year
built

No of residential Units

Photo Taken

Yes

No

Type of Construction

☐ Timber frame☐ Steel frame☐ Tilt-up concrete☐ Concrete frame☐ RC frame with masonry infill☐ Concrete shear wall☐ Unreinforced masonry☐ Reinforced masonry☐ Confined masonry☐ Other:

Primary Occupancy

☐ Dwelling☐ Other residential☐ Public assembly☐ School☐ Religious☐ Commercial/ Offices☐ Industrial☐ Government☐ Heritage Listed☐ Other

Investigate the building for the conditions listed below:

Overall Hazards / Damage

Minor/None

Moderate

Severe

Comments

Collapse, partial collapse, off foundation

☐☐☐

Building or storey leaning

☐☐☐

Wall or other structural damage

☐☐☐

Overhead falling hazard

☐☐☐

Ground movement, settlement, slips

☐☐☐

Neighbouring building hazard

☐☐☐

Other

☐☐☐

Choose a posting based on the evaluation and team judgement. Severe conditions affecting the whole building are grounds for an **UNSAFE** posting. Localised Severe and overall Moderate conditions may require a **RESTRICTED USE**. Place **INSPECTED** placard at main entrance. Post all other placards at every significant entrance.

INSPECTED

GREEN

☐

RESTRICTED USE

YELLOW

☐

UNSAFE

RED

☐

Record any restriction on use or entry:

Further Action Recommended:

Tick the boxes below only if further actions are recommended

☐ Barricades are needed (state location):☐ Level 2 or detailed engineering evaluation recommended☐ Structural☐ Geotechnical☐ Other:☐ Other recommendations:

Estimated Overall Building Damage (Exclude Contents)

None

☐

0-1 %

☐

31-60 %

☐

2-10 %

☐

61-99 %

☐

11-30 %

☐

100 %

☐

Sign here on completion

Date & Time
ID

Inspection ID _____ (Office Use Only)

APPENDIX 5

RAPID ASSESSMENT PLACARDS



INSPECTED

NO RESTRICTION ON USE OR OCCUPANCY

This building has received a brief inspection only. While no apparent structural or other safety hazards have been found, a more comprehensive inspection of the exterior and interior may reveal safety hazards.

This facility was inspected pursuant to the Civil Defence Emergency Management Act 2002

Inspector ID:

📍 Exterior Only

📍 Exterior and Interior

Acting under the authority of the Civil Defence Emergency Management Controller:

Facility/ Tenancy Name and Address

Date:

Time:

Please ensure the owners are advised of this notification. Owners are encouraged to obtain a detailed structural engineering assessment of the building as soon as possible. Report any unsafe conditions to the Territorial Authority. Subsequent events causing damage may change this assessment. Re-inspection may be required. Secondary damage (partitions, windows, fittings and furnishings) may be hazardous. Electrical and mechanical equipment, gas connections, water supplies and sanitary facilities have not been inspected.

Do Not Remove this Placard. Placed on Behalf of the Civil Defence Emergency Management Controller
Under the Authority of the Civil Defence Emergency Management Act 2002

NO ENTRY EXCEPT ON ESSENTIAL BUSINESS

WARNING:

This building has been damaged and its structural safety is questionable. Enter only at own risk. Subsequent aftershocks or other events may result in increased damage and danger, changing this assessment. Re-inspection may be required. The damage observed from external inspection is as described below:

Facility/ Tenancy Name and Address

This facility was inspected pursuant to the Civil Defence Emergency Management Act 2002

Inspector ID:

Restrictions on use:

- No public entry or residential occupation
- Entry for
 - Emergency purposes
 - Damage assessments, making safe
 - Removal of essential business records
 - Removal of valuables only
 - Removal of property
 - Conducting essential business with minimum staff

Acting under the authority of the Civil Defence Emergency Management Controller:

Date:

Time:

Do Not Remove this Placard. Placed on Behalf of the Civil Defence Emergency Management Controller
Under the Authority of the Civil Defence Emergency Management Act 2002

DO NOT ENTER OR OCCUPY
(THIS PLACARD IS NOT A DEMOLITION ORDER)

WARNING:

This building has been seriously damaged and is unsafe. Do not enter. Entry may result in death or injury. The damage observed from external inspection is as described below :-

This facility was inspected pursuant to the Civil Defence
Emergency Management Act 2002

Inspector ID: _____

Acting under the authority of the Civil Defence Emergency
Management Controller: _____

Date: _____

Time: _____

Enter only with specific written authorisation from Territorial Authority
acting under the authority of the Civil Defence Emergency
Management Controller.

Facility/ Tenancy Name and Address

Do Not Remove this Placard. Placed on Behalf of the Civil Defence Emergency Management Controller
Under the Authority of the Civil Defence Emergency Management Act 2002

APPENDIX 6

EXTRACT FROM BUILDING SAFETY EVALUATION INFORMATION RECORDING WORKBOOK AND DATABASE

Building Safety Evaluation Information Recording Workbook and Database

Note: Refer to the workbook guide on the Help sheet for how to use the worksheet.

Territorial Authority:

Health Hazard Assessment

Comment Summary

Inspection Identifiers										Location										Building Description										Type	Overall	Ratings										Structure										Notes										Other										Further Action Recommended										CSR										Inspection Identifiers										Overall	Ratings										Further Action Recommended										Summary										Check	Check	Check
Inspection ID	Previous ID	Previous ID	Short Name	Inspector Initials	Month	Day of Inspection	Inspection # on day	Assessment Type	Contact Name	Contact Phone	Street Address	Suburb	Post Code	Lot / DP	PRUPI	Bisca ID	GPS S ° (WGS84)	GPS E °	Satellite or Map	Building Name	Primary Occupancy	No. Residential Units	Gross Floor Area (m ²)	Floor(s) God & Above	Floor(s) Below Ground	Era	Type of Construction	Collapses	Building Leaking	Neighbour Buildings	Overhead Hazards	Settlement and Slips	Wall or other structural	Other	Building Damage	Usability Category	Cf	Corridors	Roof and Floor	Columns and Corbels	Diaphragms, Braces	Precast Connections	Beams and Girders	Drageads	Cladding	Ceilings	Interior Walls	Elevators	Stairs and Exits	Utilities	Fire Safety	Slope Failure	Ground Movement	Soil Bulging -	Other	General Comment	Photos	Forms & Sketches	Action 1	Action 2	Action 3	Action 4	Inspect Again?	Reinspection Priority	CSR 1	CSR 2	Inspection ID	Previous ID	Previous ID	Inspector Initials	Month	Day of Inspection	Inspection # on day	Assessment Type	Water On	Sewer Damage	Interior Silt	Building Secure	Other	Usability Category	Hazard Posted	Action	Other Recommendations	Inspect Again?	Priority for Reinspection	Comment Summary										Data Quality Check	Computer Number	Data Review																																					

APPENDIX 7

CHRISTCHURCH EQ RAPID ASSESSMENT FORM – LEVEL 2

Christchurch Eq RAPID Assessment Form - LEVEL 2

ENG.CCC.0002F.84

Inspector Initials		Date		Final Posting (e.g. UNSAFE)	
Territorial Authority	Christchurch City	Time			

Building Name

Short Name

Address

GPS Co-ordinates

S°

E°

Contact Name

Contact Phone

Storeys at and above ground level

Below ground level

Total gross floor area (m²)

Year built

No of residential Units

Type of Construction

☐ Timber frame

☐ Steel frame

☐ Tilt-up concrete

☐ Concrete frame

☐ RC frame with masonry infill

☐ Concrete shear wall

☐ Unreinforced masonry

☐ Reinforced masonry

☐ Confined masonry

☐ Other:

Primary Occupancy

☐ Dwelling

☐ Other residential

☐ Public assembly

☐ School

☐ Religious

☐ Commercial/ Offices

☐ Industrial

☐ Government

☐ Heritage Listed

☐ Other

Photo Taken

Yes

No

Investigate the building for the conditions listed on page 1 and 2, and check the appropriate column. A sketch may be added on page 3

Overall Hazards / Damage

Minor/None

Moderate

Severe

Comments

Collapse, partial collapse, off foundation

☐
☐
☐

Building or storey leaning

☐
☐
☐

Wall or other structural damage

☐
☐
☐

Overhead falling hazard

☐
☐
☐

Ground movement, settlement, slips

☐
☐
☐

Neighbouring building hazard

☐
☐
☐

Electrical, gas, sewerage, water, hazmats

☐
☐
☐

Record any existing placard on this building:

Existing Placard Type
(e.g. UNSAFE)

Choose a new posting based on the new evaluation and team judgement. Severe conditions affecting the whole building are grounds for an UNSAFE posting. Localised Severe and overall Moderate conditions may require a RESTRICTED USE. Place INSPECTED placard at main entrance. Post all other placards at every significant entrance. Transfer the chosen posting to the top of this page.

INSPECTED

GREEN

G1

G2

RESTRICTED USE

YELLOW

Y1

Y2

UNSAFE

RED

R1

R2

R3

Record any restriction on use or entry:

Further Action Recommended:

Tick the boxes below only if further actions are recommended

☐ Barricades are needed (state location):

☐ Detailed engineering evaluation recommended

☐ Structural

☐ Geotechnical

☐ Other:

☐ Other recommendations:

Estimated Overall Building Damage (Exclude Contents)

None

☐

0-1 %

☐

31-60 %

☐

2-10 %

☐

61-99 %

☐

11-30 %

☐

100 %

☐

Sign here on completion

Date & Time
ID

Inspection ID: _____ (Office Use Only)

Structural Hazards/ Damage

Minor/None

Moderate

Severe

Comments
ENG.CCC.0002F.85

Foundations

☐☐☐

Roofs, floors (vertical load)

☐☐☐

Columns, pilasters, corbels

☐☐☐

Diaphragms, horizontal bracing

☐☐☐

Pre-cast connections

☐☐☐

Beam

☐☐☐**Non-structural Hazards / Damage**

Parapets, ornamentation

☐☐☐

Cladding, glazing

☐☐☐

Ceilings, light fixtures

☐☐☐

Interior walls, partitions

☐☐☐

Elevators

☐☐☐

Stairs/ Exits

☐☐☐

Utilities (eg. gas, electricity, water)

☐☐☐

Other

☐☐☐**Geotechnical Hazards / Damage**

Slope failure, debris

☐☐☐

Ground movement, fissures

☐☐☐

Soil bulging, liquefaction

☐☐☐

General Comment

Usability Category

Damage Intensity		Posting	Usability Category	Remarks
Light damage	Inspected (Green)	G1. Occupiable, no immediate further investigation required		
Low risk		G2. Occupiable, repairs required		
Medium damage	Restricted Use (Yellow)	Y1. Short term entry		
Medium risk		Y2. No entry to parts until repaired or demolished		
Heavy damage	Unsafe (Red)	R1. Significant damage: repairs, strengthening possible		
High risk		R2. Severe damage: demolition likely		
		R3. At risk from adjacent premises or from ground failure		

2 Inspection ID: _____ (Office Use Only)

ENG.GCC.0002F.86

[illegible]

Blank lined paper with horizontal ruling lines.

APPENDIX 8

CHRISTCHURCH CITY COUNCIL PAMPHLET – DEFINITIONS OF THE RED, YELLOW OR GREEN PLACARDS ON HOMES AND BUILDINGS

Christchurch City Council

Definitions of the Red, Yellow or Green Placards on Homes and Buildings



Please note the red, yellow and green placards that have been placed on damaged residential and commercial properties.

Red

- A red placard means people should not enter or occupy the home because it has been determined unsafe. **This is not a demolition order.**
- Homes with a red placard require a further detailed structural assessment by a building professional. It is the homeowner's responsibility to contact the building professional to set this up. That assessment must then be discussed with the Christchurch City Council's building evaluation and inspection team to determine options.

Yellow

- A yellow placard means the home has limited access and further structural assessment is needed by the owner's consultants.

Green

- A green placard means the home has received a brief inspection only.
- While no apparent structural or other safety hazards have been found, a more comprehensive inspection of the exterior and interior may reveal structural or safety hazards. **It is the home-owners responsibility to set up this further evaluation.**

APPENDIX 9

**CHRISTCHURCH CITY COUNCIL MEDIA RELEASE – 9.00PM 4TH SEPTEMBER
2010**

You are here: [Home](#) | [The Council](#) | [News & media](#) | [Media releases](#) | [2010](#) | Building inspection in the Central City may see cordon lifted (9pm, 4 September 2010)

Building inspection in the Central City may see cordon lifted (9pm, 4 September 2010)

4 September 2010

Tomorrow morning, Sunday 5 September, 20 to 25 teams from the Council's Building Evaluation Team will be inspecting all buildings within the area currently cordoned off.

The team will be placing red placards on buildings that are considered unsafe and cannot be entered, yellow placards on buildings with restricted use and green placards on buildings with no restriction on use.

The teams are aiming to reduce the area of the cordon currently in place, although the time of this will depend on the circumstances and the time it takes to check all the buildings.

The aim is to enable owners and tenants to learn the state of their building before the end of the day. Once the cordon is removed, owners will be able to look at their buildings. This will allow some of them to be able to clean up on Monday.

The public will not have access to the inner city area until at least Monday, unless they are residents.

Authorising Unit: Communications

Last reviewed: Saturday, September 04, 2010

Next review: Friday, March 04, 2011

Keywords: christchurch, christchurch city council, earthquake, earthquakes, media

Friday, July 15, 2011 3:37:33 PM New Zealand Local Time.



Christchurch
City Council 

APPENDIX 10

**CHRISTCHURCH CITY COUNCIL MEDIA RELEASE – 5.45PM 6TH SEPTEMBER
2010**

You are here: [Home](#) | [The Council](#) | [News & media](#) | [Media releases](#) | [2010](#) | Building access (5:45pm, 6 September 2010)

Building access (5:45pm, 6 September 2010)

6 September 2010

Messages for Employers and Building Owners about access to buildings:

Inside cordoned area – these buildings cannot be accessed currently by the general public, but building owners can uplift a permission to enter the cordon area for the purpose of inspecting their building. The permission can be uplifted from the Emergency Operations Centre located at that Christchurch Art Galley on Montreal Street.

[This link provides a flowchart to assist building owners to assess damage.](#)

In relation to all areas if a building has a Green, Yellow or Red placard:

- Green placard – the building has had an initial assessment and there is no restriction on use or occupancy. Follow the instructions on the placard. Please note that in some circumstances Council will conduct an additional more detailed evaluation to verify the green placard status.
- Yellow placard – building has been inspected. Follow the instructions on the placard. A second more detailed inspection may allow the placard to be upgraded to green status. These second evaluations will be carried out by Council on a priority basis, however, building owners should engage a structural engineer which may allow earlier occupation.
- Red placard – building has had initial assessment and is **not** OK to use. A second evaluation will be carried out by Council on a priority basis. To clear the building for use the building owner needs to engage a structural engineer *and* arrange for their engineer to provide a report declaring the building is safe for purpose to Council via the Emergency Operations Centre

Please be patient as there are many damaged buildings and high demand for inspection services.

If building does **not** have a Green, Yellow or Red placard:

- It is the building owners or occupiers responsibility to check the structural integrity of any building particularly those open to the public. Check the building by observation from the outside initially. If there is no visible damage then you may check the inside of the building at your own risk. If there is any visible damage or you have concerns then the building owner should engage a structural engineer *and* arrange for their engineer to provide a report declaring the building is safe for intended purpose to Council via the Emergency Operations Centre.

All structural engineer reports commissioned privately by building owners need to be forwarded to Council via the Emergency Operations Centre. These can be emailed to buildingconsentapplication@ccc.govt.nz.

Please take care moving around the city and visiting buildings. Stay clear of any buildings which are obviously damaged. Be aware of possible falling glass or other debris particularly if winds pick up.

For further information, please refer to the Christchurch City Council website www.ccc.govt.nz, email info@ccc.govt.nz or contact the Christchurch City Council call centre on (03) 941 8999 .

Media inquiries can be directed to (03) 941 7373 or 027 241 0244 .

APPENDIX 11

**CHRISTCHURCH CITY COUNCIL MEDIA RELEASE – 8.00PM 8TH SEPTEMBER
2010**

You are here: [Home](#) | [The Council](#) | [News & media](#) | [Media releases](#) | [2010](#) | Christchurch Earthquake – Advice for Building Owners (8.00pm, Wednesday 8 September 2010)

Christchurch Earthquake – Advice for Building Owners (8.00pm, Wednesday 8 September 2010)

8 September 2010

Owners of heritage buildings are advised not to demolish heritage listed buildings without the express written authorisation of the Christchurch City Council.

Demolition cannot be undertaken without the written approval of the Council.

There should be no pre-emptive demolition undertaken by building owners in advance of full structural assessment from a professional engaged by the building's owner with advice from Christchurch City Council.

Civil Defence Controller Michael Aitken says "The city and the Council value our heritage buildings and will take the most constructive path to recovering them. If there is a concern about building stability, the first response will be to stabilise them if at all possible." The city has time to take stock of the options regarding building stabilisation. "We advise commercial property owners and residents with significant buildings to use common sense and seek the advice of the Council before taking action," he says.

Despite the circumstances, the Building Act (2004) still applies. A building consent for urgent building work can be obtained at the Emergency Operations Centre based at the Christchurch Art Gallery. These consents will be subject to safe practice conditions such as disconnecting power and drains, along with appropriate health and safety practices. Heritage conditions will apply.

A red placard means that people should not enter or occupy the building because it has been determined as unsafe. It is not a demolition order. Nor does it mean the adjacent building is 'red'.

Buildings with a red placard require a further detailed structural assessment by a building professional engaged by the owner. That assessment must then be discussed with the Christchurch City Council's building evaluation and inspection team to determine options.

There have also been reports that some people have misinterpreted a red placard to mean that they have 10 minutes to collect their belongings. This is not the case. Buildings with red placards are unsafe and should not be entered.

A yellow placard means the building has limited access, as noted on the placard, and further structural assessment is needed by the owner's consultants.

The meaning of green placards, and buildings that have not yet received placards, has also been clarified. A green placard means there has been a brief inspection only. While no apparent structural or other safety hazards have been found, a more comprehensive inspection of the exterior and interior may reveal structural or safety hazards.

It is the building owner's or occupier's responsibility to get further independent advice regarding the safety of any building if necessary. This is also the case for buildings with no placards.

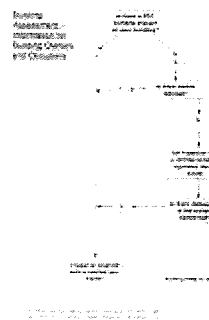
If there is no placard on a building, owners or occupiers should check for visible damage. It is recommended that where there is concern, a registered master builder or, in the case of building integrity a structural engineer, should check the building before declaring it safe to occupy. They should then liaise with the Council about options.

Business owners with enquiries should contact the Council's Building Evaluation Team via the Christchurch City Council call centre on (03) 941 8999 .

For more information, refer to this building assessment flow-chart: Use Full Screen view or click on the [larger view] icon in the image below

<http://resources.ccc.govt.nz/images/CheckingBuildingDecisionFlowchart.jpg>

For further information, please refer to the Christchurch City Council website www.ccc.govt.nz, email info@ccc.govt.nz or phone (03) 941 8999 .



Building Damage Assessment Flowchart

[[larger view](#)]

Authorising Unit: Communications

Last reviewed: Wednesday, September 08, 2010

Next review: Tuesday, March 08, 2011

Keywords: buildings, christchurch, christchurch city council, earthquake, earthquakes, media

Friday, July 15, 2011 3:43:44 PM New Zealand Local Time.



APPENDIX 12

**CHRISTCHURCH CITY COUNCIL MEDIA RELEASE – 12PM 16TH SEPTEMBER
2010**

You are here: [Home](#) | [The Council](#) | [News & media](#) | [Media releases](#) | [2010](#) | State of Emergency status (12pm, 16 September 2010)

State of Emergency status (12pm, 16 September 2010)

16 September 2010

The state of emergency has been lifted from the Christchurch City Council Area.

"We are now moving from a state of emergency to a state of urgency," says Christchurch Mayor Bob Parker. "We will be operating under the new powers brought in under the Canterbury Earthquake Response and Recovery Bill, but transferring from a civil defence situation and back closer to business as usual."

"This doesn't change the fact that many people are still facing great difficulties, and resolving these issues will continue to be a focus as we rebuild our region. As mayors we have jointly dedicated ourselves to finding as many lasting solutions as possible."

The functions of the EOC (Emergency Operation Centre) at the Civic Offices are being transferred over the next two days to the Council's normal operations. People who have inquiries relating to the Civil Defence emergency should continue to contact the Council's call centre on (03) 941 8999 or Free phone: 0800 800 169 .

Can I remove the placard now that the state of emergency has been lifted?

Buildings that have been assessed for earthquake damage have placards on them that follow a colour-coded 'traffic light' system, based on international engineering best practice and adapted for New Zealand conditions.

The placards should not be removed when the states of emergency are lifted, because they indicate that a building has had an initial assessment.

Definition of what the placards mean is available here

<http://www.ccc.govt.nz/homeliving/civildefence/chcheearthquake/housesbuildings.aspx>

These building safety evaluation placards were developed by the New Zealand Society for Earthquake Engineering with support from the Department of Building and Housing and the Ministry of Civil Defence and Emergency Management.

The placards are temporary notices that will be replaced by notices issued by the Council under Sections 124 and 125 of the Building Act 2004.

For further information, please refer to the Christchurch City Council website www.ccc.govt.nz, email info@ccc.govt.nz or contact the Christchurch City Council call centre on (03) 941 8999 or Free phone: 0800 800 169 .

Media inquiries can be directed to (03) 941 7373 or 027 241 0244 .

Authorising Unit: Civil Defence and Emergency Management

Last reviewed: Thursday, September 16, 2010

Next review: Wednesday, March 16, 2011

Keywords: earthquake, media, states of emergency

Monday, July 11, 2011 8:53:29 AM New Zealand Local Time.



Christchurch
City Council 

APPENDIX 13

STRONGER CHRISTCHURCH eNEWSLETTER 6TH OCTOBER 2010



Wednesday, 6 October 2010

Hello

You have received this newsletter because you have signed up for [Stronger Christchurch – Recovery eNewsletter](#). If you are not interested anymore, you can [unsubscribe instantly](#).

Having trouble reading this email? [View it on your browser](#).

Council awaits Government announcement

The Christchurch City Council is eagerly awaiting the Earthquake Commission's geotechnical report. A wide range of technical experts has had input to the report, which is expected to form the basis of decisions about building options in parts of the city most affected by the earthquake. There are many decisions on hold until that report is finalised – for the Government, insurance companies, residents, businesses, the Council and others.

"From a Council perspective we need this information so we can make decisions about what sort of repairs we need to make," says Recovery Manager Alan Bywater. "We need to continue with our efforts to get water and waste services back to households as quickly as possible. However we don't want to start permanent repairs in areas where land remediation work is likely to occur because this would undo our good work."

Sewer repairs

There are seven closed circuit television cameras checking sewer pipelines in the city and two more are expected next week. Several contractors are doing repair work on sewer lines and pump stations in an effort to reduce the overflow of sewage into streams and rivers in several suburbs where the sewer system has been damaged. Some of these repairs will only be temporary until final solutions can be implemented. Steady daily improvements are being made to the level of sewage overflows into the Avon River (east of Fitzgerald Avenue) and the Lower Styx River.

Cleaning up silt and sand

The Council can help residents remove sand and silt that has appeared on properties since the earthquake. Residents are asked to pile this on the roadside (rather than on grass berms) and to call the Council's call centre on weekdays (ph 941 8999) to let us know where it is so that we can arrange to collect it. Alternatively, discounted rates apply at Council refuse stations, and payments can be claimed back on insurance. Residents needing help to remove silt or sand are asked to call the Council so that we can arrange

for a volunteer or helper to shift it to the roadside for collection. Breaks in sewer lines can lead to contamination of silt or sand – creating a risk to human health. Residents are asked to treat silt or sand near broken sewer pipes as potentially contaminated. This means avoiding unnecessary contact; thorough hand and clothing washing after contact with sand or silt; keeping pets, children or those in frail health away from the material; and reporting any health symptoms such as an upset tummy to a doctor. Once the silt or sand dries in sun or air, bacteria present will die off. It is advisable to wear a mask when working in a dusty environment. Free face masks are available at Christchurch City Council Service Centres for people requiring them to clean up silt and sand.

Cemetery headstones

Residents are asked to check the condition of their family headstones in Christchurch City Council cemeteries. If repairs are required they are the responsibility of the family and need to be done by one of the following Council approved monumental masons:

- Decra Art ph 366-3932
- Fraser Lawrence Memorials ph 366-0627
- L Robertson Memorials ph 366-5630

Where possible repair work should be started before 30 November 2010. Families outside the Christchurch can email: cemeteries@ccc.govt.nz for information about the condition of their headstone.

Road closures

Robson Avenue, Avonside, at its intersection with Acland Avenue has been closed until further notice due to an unstable road surface. Manchester Street between Tuam St and Lichfield St is closed today (Wednesday) at 6am, due to building work, and is expected to re-open on Thursday at 6pm. Due to additional rock blasting and removal, Sumner Road is likely to be closed for a further 10 days. Sumner Road runs from Lyttelton to the Summit Road, where it becomes Evans Pass Road.

Does your business have a red or yellow placard on it?

Please remember if you have a commercial building that has either a red or yellow sticker on it - these placards are still in effect. This means that the buildings are not suitable in their current earthquake damaged state for their intended use.

- Red placards mean that the building is unsafe for any occupation, so do not enter.
- Yellow placards mean that there is limited access to the building and building owners and occupiers should follow the restrictions on the use as detailed on the placard.

Owners of buildings with red or yellow placards should be obtaining a structural engineering assessment of their building and should contact the Council's Building Recovery Office before doing any work on the building.

The Council is continuing to review the status of commercial buildings where we learn of further damage that may put public safety at risk. If you have any questions about your placard please contact the Council on 941 8999.

Red Cross Grants Available

Please visit the [Red Cross website](#) to see if you are eligible for any emergency grants and assistance from the The Red Cross Canterbury Earthquake Commission.

Please forward this email to your family and friends

Help us stay in touch with the community by forwarding this to your friends and family.

To sign up to receive the newsletter [click here](#).

For more information about the recovery programme [visit our website](#) daily.

[People](#) [Homes](#) [Heritage](#) [Business](#) [Environment](#) [Council facilities](#) [Media](#)

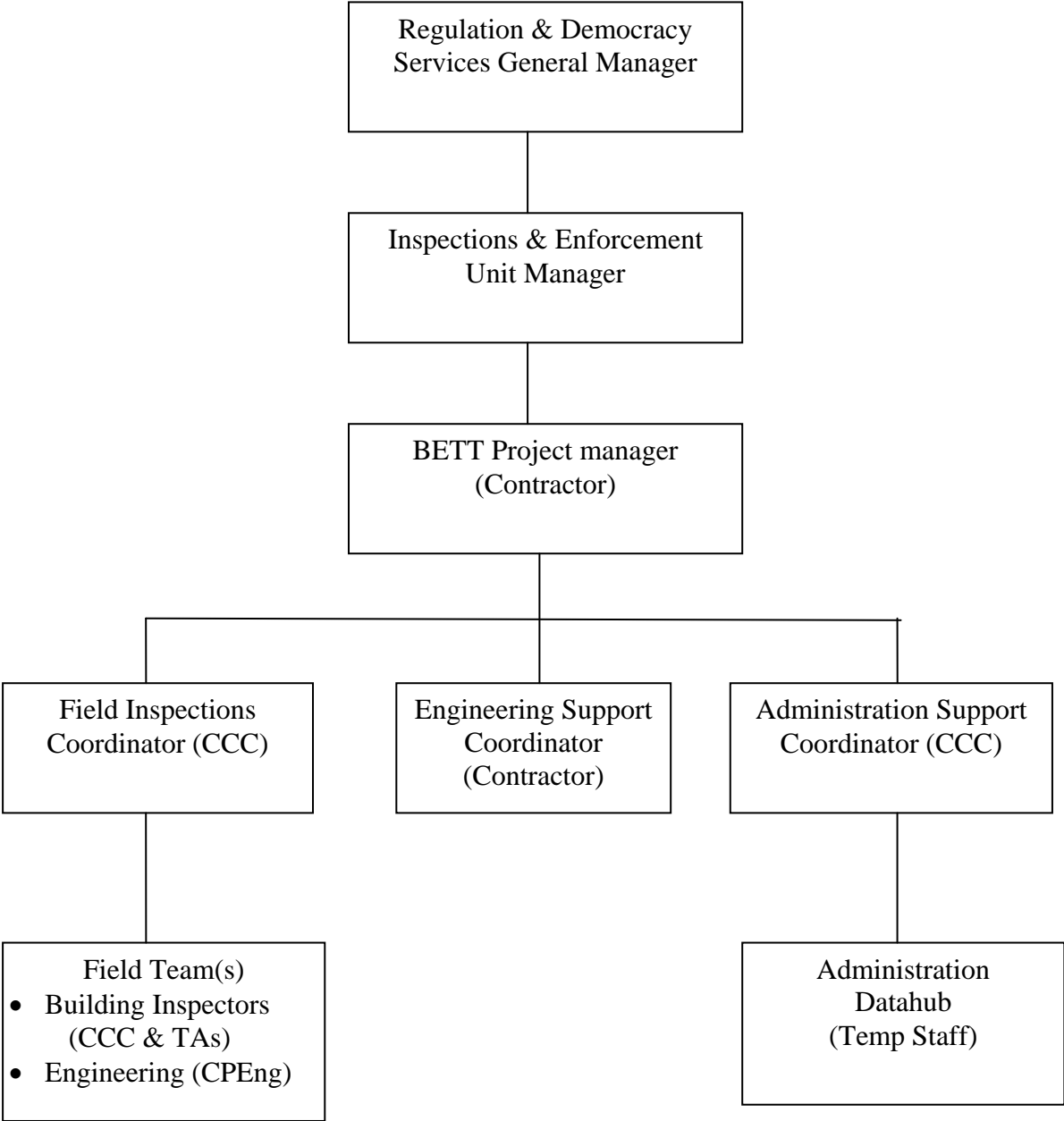
[Unsubscribe](#) | [Change preferences](#) | [Forward to a friend](#)

Email address used for subscription: [email address suppressed]

Christchurch
City Council 

APPENDIX 14
BETT STRUCTURE CHART

BETT STRUCTURE



APPENDIX 15

CHRISTCHURCH COVERSHEET	CITY	COUNCIL	ENFORCEMENT	TEAM	NOTICES
----------------------------	------	---------	-------------	------	---------

CHRISTCHURCH CITY COUNCILENFORCEMENT TEAM
NOTICES COVERSHEET**Christchurch**
City Council**Address :****Date :****Time:****Building Evaluation Transition Team - Actions**

Level 1 / 2 Assessment Sheet completed (attached)

Yes / No

Photos taken and attached:

Yes / No

Previous Existing Placard – RED YELLOW GREEN UNKNOWN

New Status (please circle – RED YELLOW GREEN

Further Action required:
(Instruction for Administration)

Yes / No

No further Action required – Information entered by Data Hub - File

Notice Required to be completed by Operation NOTICE staff

Yes / No

Txt: Fully outline what the danger is and / or work required:**Completed by**
(print name):

APPENDIX 16

BUILDING EVALUATION TRANSITION (B.E.T.) TEAM SITE VISIT PROCESS

Building Evaluation Transition (B.E.T.) Team Site Visit Process

1. **Complaint received or risk identified in field.**
2. **Visit site.**
3. **Complete: Level 1 and/or Level 2 Assessment Form.**
4. **Evaluation:**
 - a. **Question:** Is the building dangerous as per s121, Building Act 2004 (as inserted by the Canterbury Earthquake (Building Act) Order 2010)?
 - b. **Section 121 Building Act 2004 as inserted by the Canterbury Earthquake (Building Act) Order 2010** states:
 - (1) a building is dangerous for the purposes of this Act, if
 - (a) in the ordinary course of events (excluding the occurrence of an earthquake), the building is likely to cause –
 - (a) (i) injury or death to any persons in it or to persons on the property, or
 - (a) (ii) damage to other property
 - (b) in the event of fire, injury or death to any persons on other property is likely because of fire hazard or the occupancy of the building or
 - (c) there is a risk that the building could collapse or otherwise cause injury or death to any person in the building as a result of an earthquake that generates shaking that is less than a moderate earthquake; or
 - (d) there is a risk that other property could collapse or otherwise cause injury or death to any person in the building; or
 - (e) a territorial authority has not been able to undertake an inspection to determine whether—
 - (i) the building is dangerous under paragraph (a); and
 - (ii) the territorial authority or the chief executive, as the case may be, is required to exercise powers under section 124 or 129 as modified by this order.

ACTION

5. **If Dangerous**
 - a. Issue and attach **RED Notice** – Section 124(1)(b) Building Act 2004 (as inserted by the Canterbury Earthquake (Building Act) Order 2010) to the building.
 - b. Return to base and complete Level 1/2 Rapid Assessment with sufficient information so Repair Notices can be prepared.
 - c. Complete Notices Coversheets
 - d. ***Submit to Secretarial Support Officer for preparation of Repair Notice and Letter.***

- e. *Enlist Enforcement Team to Issue and attach Repair Notice – s124(1) (c)) Building Act 2004 (as inserted by the Canterbury Earthquake (Building Act) Order 2010) to the building.*
- f. *BET Team to ensure copies sent via mail to property owner.*
- g. *Data uploaded to computer.*

6. If Not dangerous but requires Work to make safe

- a. Advise property owner that they will receive a Repair Notice that will be affixed to the building.
- b. Return to base and complete Level ½ Rapid Assessment with sufficient information so Repair Notices can be prepared.
- c. Complete Notices Coversheet.
- d. *Submit to Secretarial Support Officer for preparation of Repair Notice and Letter.*
- e. *Enlist Enforcement Team to Issue and attach Repair Notice – s124(1) (c)) Building Act 2004 (as inserted by the Canterbury Earthquake (Building Act) Order 2010) to the building.*
- f. *BET Team to ensure copies sent via mail to property owner.*
- g. *Data uploaded to computer.*

7. If Not dangerous nor requires Work to make safe

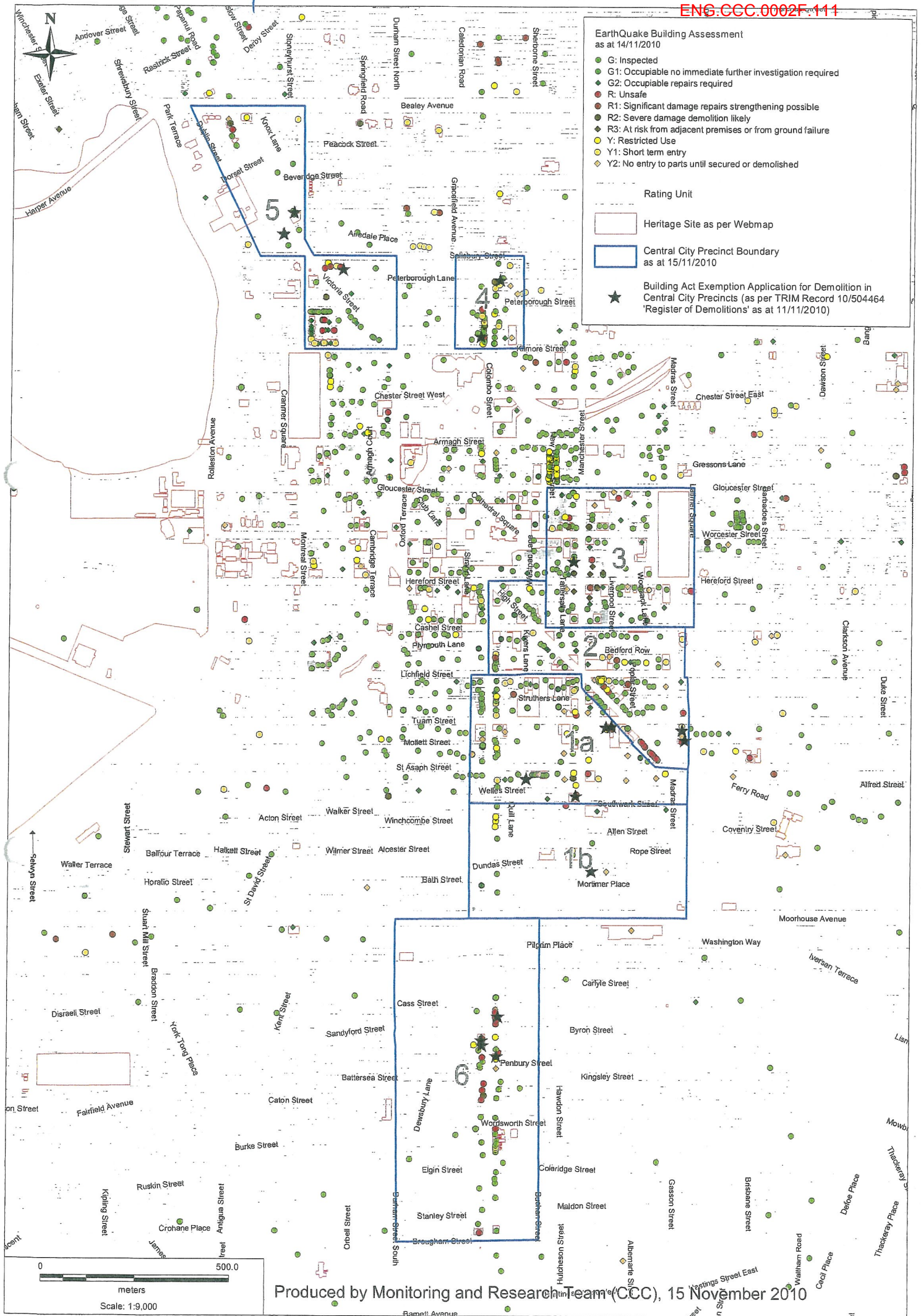
- a. Advise property owner that building is not dangerous (provide BRO details if some repairs are required on the building).
- b. No further action - required.
- c. Return to base and complete Level ½ Rapid Assessment with sufficient information of evaluation..
- d. *Data uploaded to computer.*

APPENDIX 17

CENTRAL CITY PRECINCT ASSESSMENT MAP

Central City Precinct Assessment

ENG.CCC.0002F-111

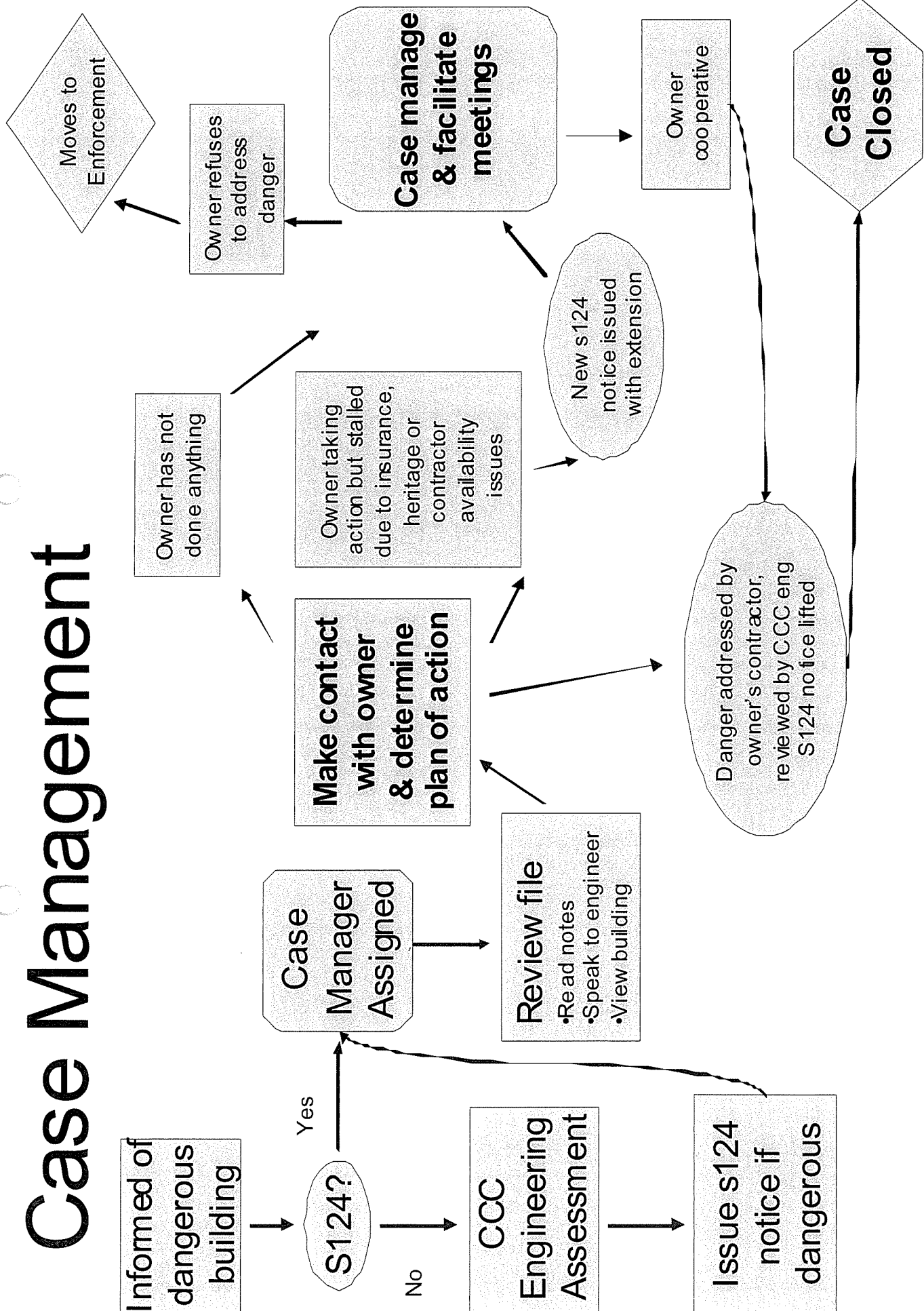


APPENDIX 18

BRO CASE MANAGEMENT PROCESS

Case Management

ENG.CCC.0002F.113



Case Management Guide to Resolving s124 Notices

1. What is the status of the building with s124 notice?
 - What makes it dangerous?
 - What needs to happen to make it safe?
2. Who is it affecting?
 - Neighbours – businesses or other buildings
 - Traffic (pedestrian & vehicle)
3. What cordons are there & what potential is there to move / reduce / remove them?
4. What is the owner doing?
 - Insured?
 - Engineer engaged?
 - Contractors?
 - Consent process needed?
5. What does the owner want to do?
 - Repair or demolish?
6. What needs to happen to get their outcome?
 - Consents (Building or Resource)
 - Traffic & Waste management
 - Engineers assessments
 - Insurance company agreement
7. What does case management need to do?
 - Ensure building owner knows the process
 - Organise meetings with CCC internal staff and building owner external parties (contractors, engineers, insurance)
 - Monitor progress of works as they happen
 - Get building owner to send in paperwork when completed
 - Get CCC engineer to sign off
 - Ensure traffic get CSR to remove cordons (if any)
 - Communication with all parties throughout process
8. Close the file and lift s124 notice
 - All information scanned and into TRIM under property file
 - All notes updated
 - Worksmart entries all updated under CDB file
 - Correspondence included
 - Client/building owner notified

What building owners must provide to resolve s124 notices:

- Engineer's assessment of building indicating what damage has occurred causing the dangerous status and what actions will be taken to address it
- Any proposed traffic & waste management plans (CCC Traffic & Waste teams must approve)
- Any consent or exemption applications (resource or building)
- Timeline of proposed work programme
- When completed, the engineer's report showing what work has been done to reduce / remove the danger with the engineer's declaration that building is not dangerous and photos to support (CCC engineer reviews and counter-signs)

Heritage Buildings

- Protected by RMA
- Listed in City Plan
- 4 Categories (L1-L4)
- Resource consents needed for:
 - Any alterations or work
 - L4 can be “controlled activity” alterations that CCC cannot refuse, but can put conditions on
 - Demolitions
 - 3 stages
 - Planners prepare report to hearings panel or commissioner
 - Decision on notified or non-notified consent (can take up to 70 days if notified and costs \$10K)
 - Decision made on whether consent to demolish is granted

Difficult or uncooperative clients

1. Establish why issue not being addressed
 - Insurance? – offer to contact insurer and advocate on behalf if necessary
 - CCC EQP? – explain policy and get EQP engineering services team to respond
 - No contractor – suggest a range to consider
2. If refusing (passively or aggressively), notify in writing:
 - What is on s124 notice (deadline)
 - What action is needed to address dangerous building
 - Engineers report
 - Timeline of works to be undertaken
 - What legal requirements / obligations under BA04 and consequences for failing to reply
 - Infringements (instant fines of \$1000)
 - Prosecution (up to \$200,000)
3. Hold meeting with building owner and team leader, legal advisor, engineers
4. If necessary, escalate
 - Refer to management to make contact
 - Refer to enforcement
5. Follow through until case resolved
 - Case manage as per BAU

Note in rare instances, there may be a prosecution needed which will be handled by legal department and not case managers

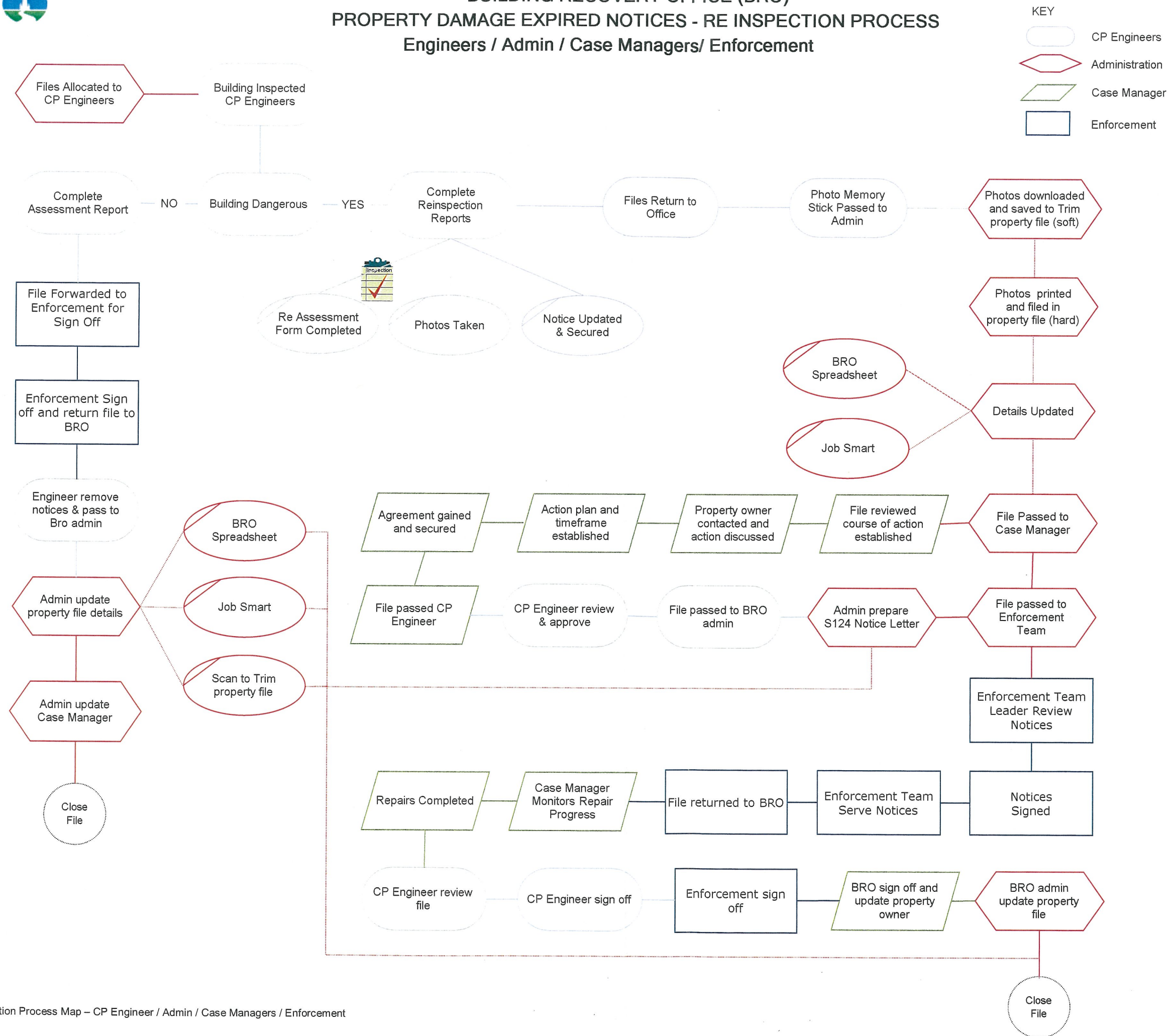
4 categories of owners in two types of buildings

1. Unsafe building
 - a. Owner does nothing
 - Reissue s124 (if owner didn't know what to do); OR
 - Refer to enforcement (if owner uncooperative after case managing)
 - b. Owner doing something but held up due to extenuating circumstances (insurance, EQP, heritage etc.)
 - Reissue s124 with new deadline
 - c. Work underway but will take considerable time
 - Reissue s124 with new deadline
2. Safe building
 - a. Owner addressed danger, work done
 - Case closed, s124 lifted

APPENDIX 19

BRO PROPERTY DAMAGE EXPIRED NOTICES – RE INSPECTION PROCESS

BUILDING RECOVERY OFFICE (BRO)
PROPERTY DAMAGE EXPIRED NOTICES - RE INSPECTION PROCESS
Engineers / Admin / Case Managers/ Enforcement



APPENDIX 20

CENTRAL CITY REVITALISATION POST EARTHQUAKE PRECINCT MEETINGS SLIDESHOW – MANCHESTER PRECINCT, 14 DECEMBER 2010



Central City Revitalisation Post Earthquake Precinct meetings

Manchester Precinct Meeting 14 December 2010

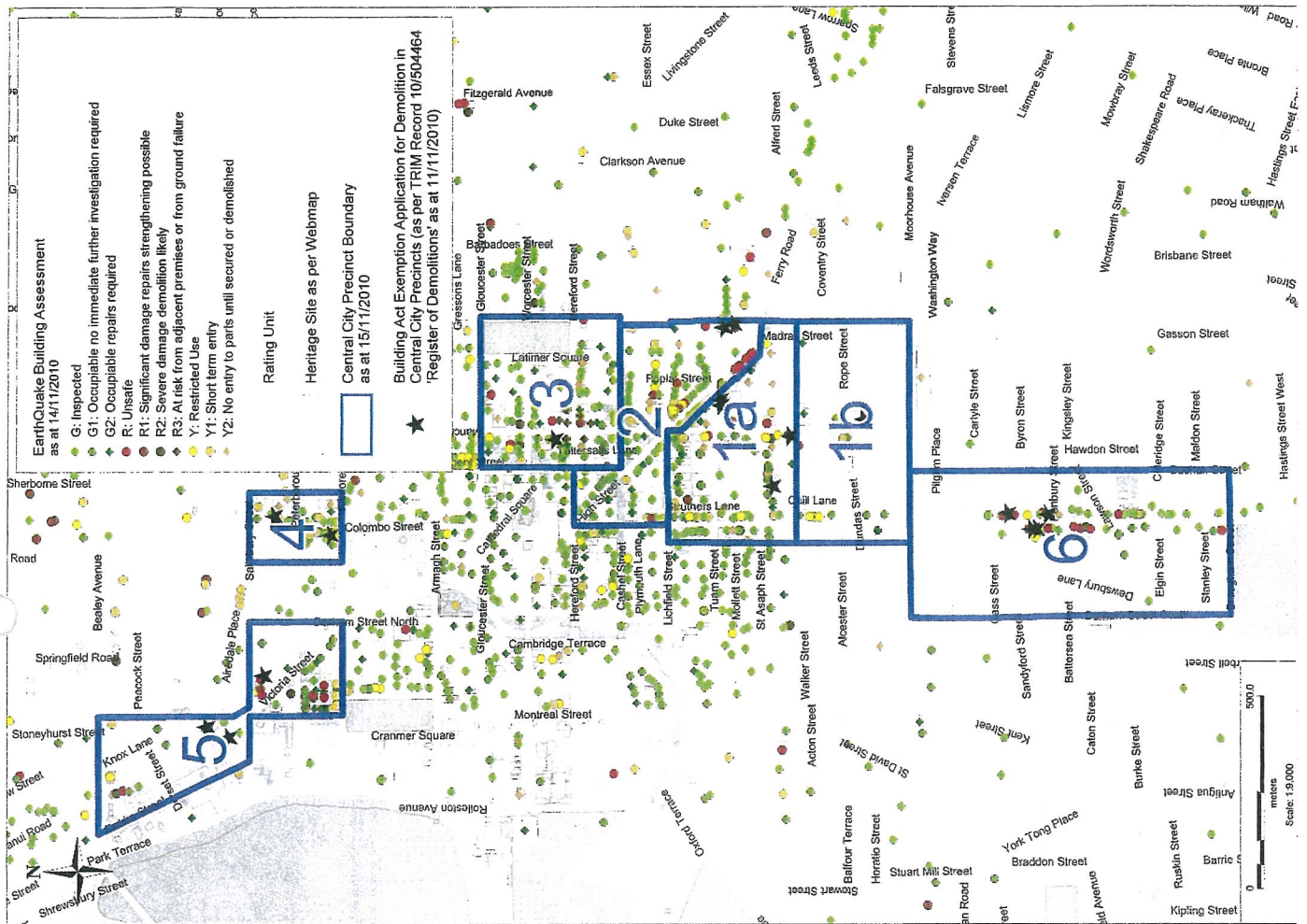
AGENDA

1. **Welcome and Introductions**
2. **Precincts Approach/ Overview of Manchester Precinct**
3. **Building Recovery matters**
 - Building Recovery Office Report
 - Canterbury Earthquake Heritage Building Fund
4. **Business Recovery matters**
 - CCC initiatives – car parking, promotion funding
 - Canterbury Employers' Chamber of Commerce – Business Advisory Services
 - IRD/Department of Labour – Business Recovery Centres
 - Insurance matters
5. **Ongoing information updates**
 - Stronger Christchurch E-newsletters
6. **Obstacles and opportunities for post-earthquake redevelopment**
 - Looking ahead – long term strategies, plans and projects
 - Barriers to development
 - The incentives project
7. **Q&A sessions at staffed tables**

2. The Precincts

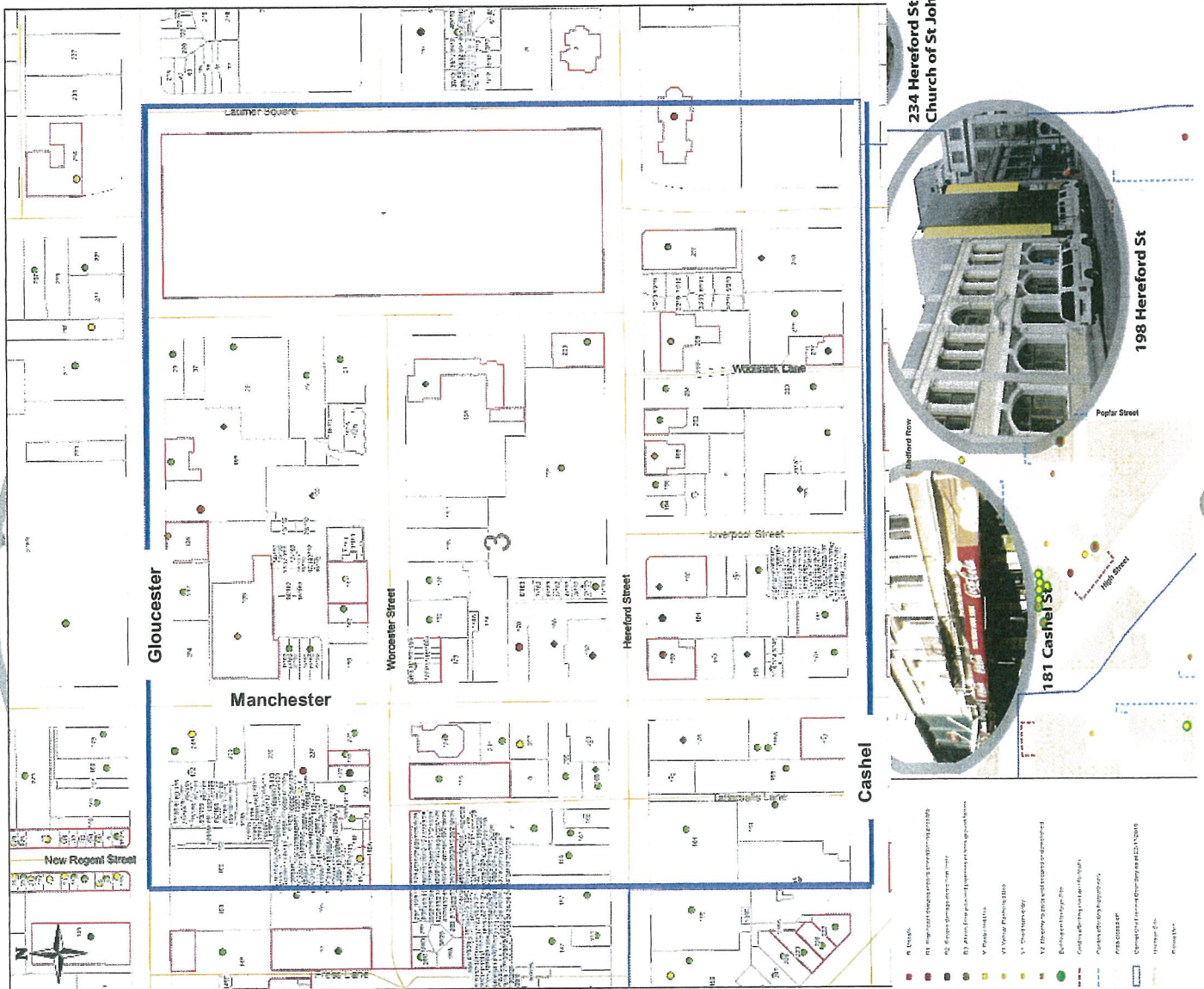
Project Objectives:

- To facilitate repair/redevelopment of Central City buildings in accordance with Revitalisation Strategies, Master Plans, and Capital Works Programme



Short term issues:

- Significant building damage in this four block section of Manchester Street
- Some buildings have been demolished ; several more anticipated
- Access limited due to cordons and the perception that the area is 'closed for business'
- There is an urgency to restore trading
- Heritage buildings at risk jeopardising the character and cohesion of the built form



3. Building Recovery matters

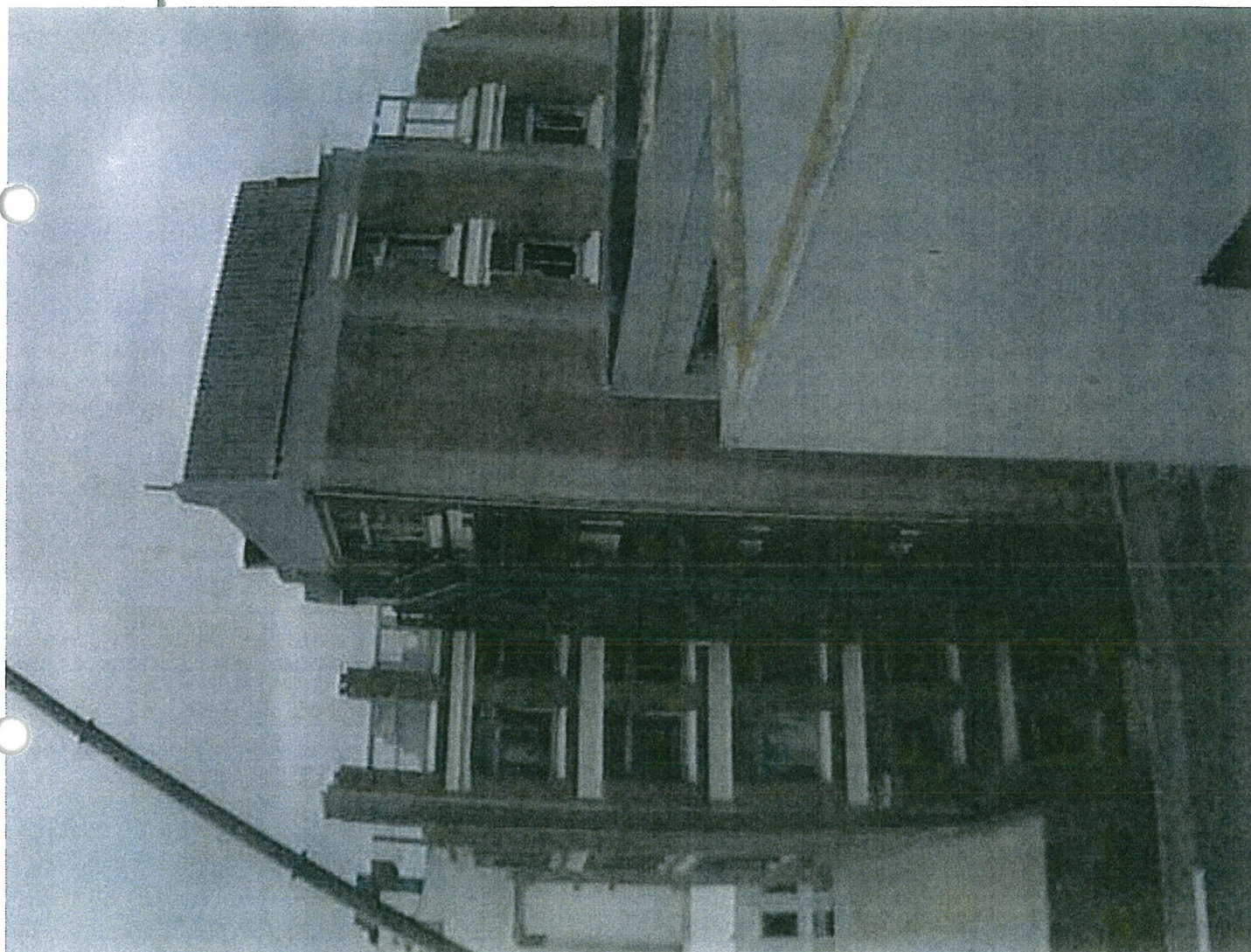
Building Recovery Office Report

- Case Managers
- Precinct Leaders
- Building Assessments
- Consents
- 160 Manchester St update

Canterbury Earthquake Heritage Building Fund

160 Manchester Street





Canterbury Earthquake Heritage Building Fund

- Appeal launched to help fund the repair, restoration and strengthening of character and heritage buildings damaged during the Canterbury earthquake
- The Fund will consist of contributions from territorial authorities, the New Zealand Historic Places Trust, and donations. Any funds received will be matched by the government who have set aside up to \$10 million.
- Major donors so far are Fletchers (\$1M), NZHPT (\$250K), territorial authorities - CCC (\$383K + Character Housing fund)
- Policy established for administering fund by an appointed Canterbury Earthquake Heritage Building Fund Trust Board

4. Business Recovery matters

- CCC initiatives – car parking, promotion funding
- Canterbury Employers' Chamber of Commerce – Business Advisory Services
- IRD/Department of Labour – Business Recovery Centres
- Insurance matters

5. Ongoing information updates

- Stronger Christchurch E-newsletters

www.ccc.govt.nz

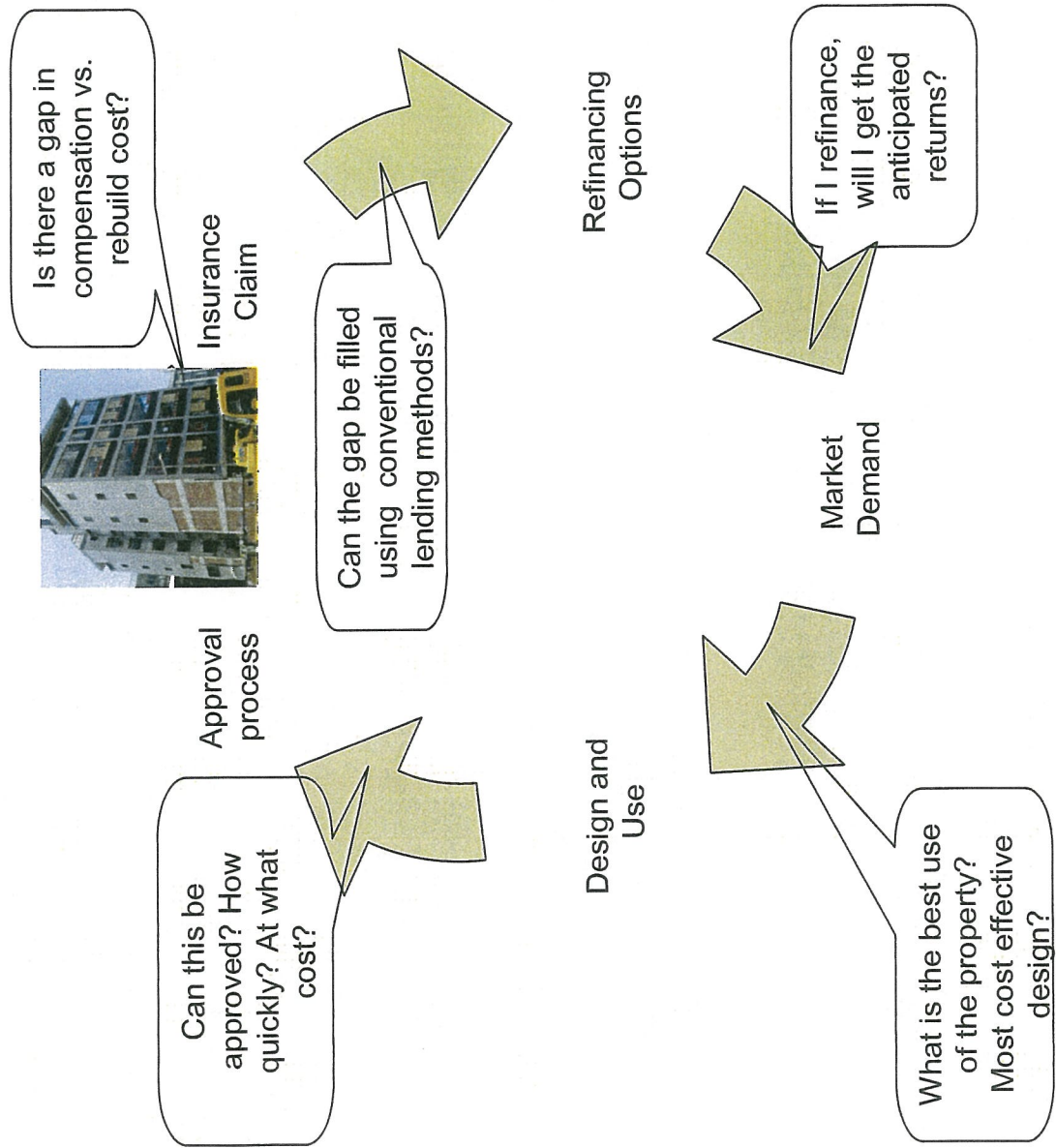


Looking ahead, Long Term Strategies:

- **Central City Revitalisation Strategy-** *Provides the overall vision for the CC*
 - Precinct Development: 'create unique character areas that provide a point of difference between Central City and the rest of Christchurch'
- **City for People Action Plan –pedestrian, amenity, people, public space, and heritage retention focus**
 - Central City Street upgrades to improve pedestrian priority and amenity; establish 30 kph slow core
 - Investigate options and develop concept plans to upgrade under utilised public spaces including Latimer Square
- **What makes Manchester Street unique?** How can we build on the existing character of this precinct to protect private and public investment?
 - Manchester Street renewal- currently in concept planning stage to achieve a shared priority street with high quality public realm amenities; scheduled for construction funding in 2012-2014
 - Latimer Square- in the investigation stage for upgrade to the Square to provide an 'urban garden' and opportunities for inner city residents to play and relax

Barriers to Redevelopment: What we know so far..

Key factors in Redevelopment Decisions:



Incentive Eligibility – Ensuring Good Outcomes



Urban Design

- Building design & appearance
- Street scene
- Relationship to neighbouring buildings
- Pedestrian connectivity & access
- Car parking & access



Sustainable Building

New Zealand Green Building Council
Homestar & Greenstar rating tools

Custom tool may also need to be developed to capture 'middle market'



Heritage

Currently under development by CCC's Urban Design & Heritage Team in accordance with new Heritage Buildings Fund Policy



Central City Residential Living

Needs to be designed in accordance with the Urban Design Panel criteria and approved by the Panel

Value Case for Green Building

16% INCREASE
IN SALES PRICE⁶

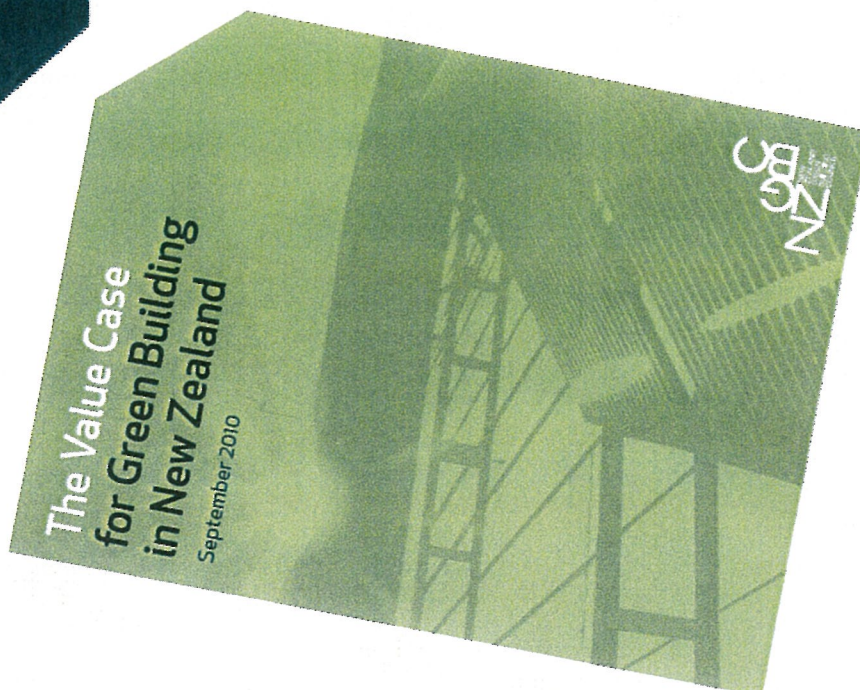
ROI OF 9.9%²

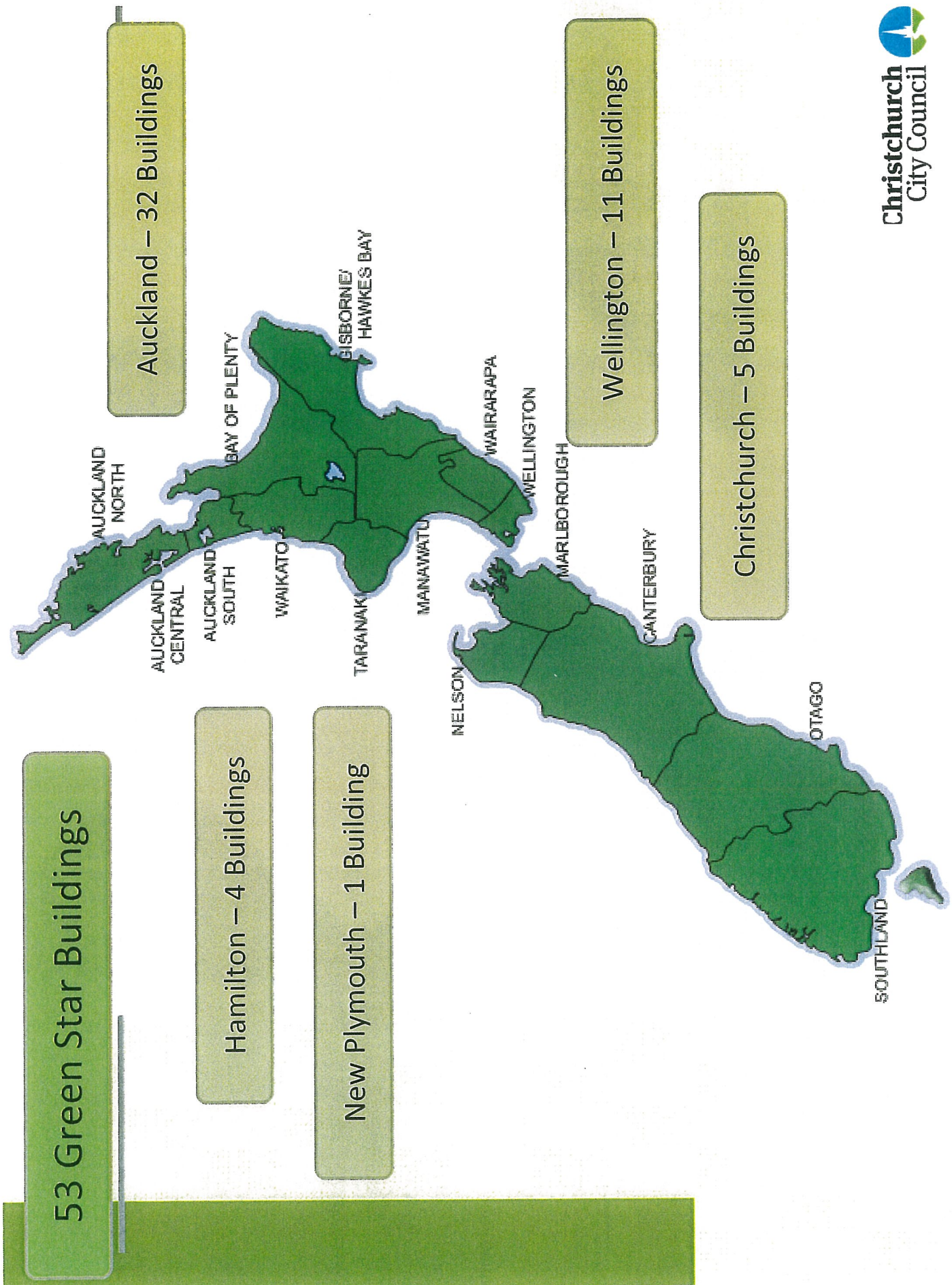
5% TO 10% INCREASE
IN LEASE VALUE⁷

60% OF ASIA PACIFIC
COMPANIES WILLING
TO PAY A PREMIUM
RENT TO OCCUPY
SUSTAINABLE SPACE⁸

OPERATING COSTS
DECREASED BY 8% TO 9%⁹

98% OF GEN Y
WORKERS
ASPIRE TO WORK
IN GREEN
BUILDINGS²⁰





7. Q&A sessions at staffed tables

- Join our specialist advisers at the marked tables at the back of the room

Thank you for attending today.

APPENDIX 21

STATEMENT BY CHARTERED PROFESSIONAL ENGINEER IN RESPECT OF BUILDING (“CPENG CERTIFICATION FORM”)

Statement by Chartered Professional Engineer in respect of the building at:

(Building Address).....

(Business Name *if applicable*)

I, (name), am a Chartered Professional Engineer (No.....,) with relevant experience in the structural design of buildings for earthquake actions.

I have been engaged to provide advice to the owner on the interim securing / strengthening of the above building following the earthquake of 4 September 2010.

I am aware of all the measures taken to secure or strengthen the building (the work) which were carried out by (Name and contact address of contractor).

I have inspected the work on completion and am satisfied on reasonable grounds that:

- a. *Structural integrity and performance.* Where the structural integrity and/or structural performance of the building (or part of the building) was materially affected by the Darfield earthquake or any aftershocks to date, interim securing measures have been taken to restore the structural integrity and performance of the building to at least the condition that existed prior to the earthquake of 4 September 2010.
- b. *Potentially dangerous features.* Potentially dangerous features on the building such as unreinforced masonry chimneys, parapets and walls have been removed or secured so that their integrity and level of structural performance is consistent with that generally achieved in other parts of the building, and so reduces the danger to people's safety and of damage to other property.
- c. *Threat from nearby buildings.* (Delete one if not applicable)
 - Protective measures installed on the subject building are sufficient in nature and extent to protect its occupants in the event of collapse of potentially dangerous features on *adjacent or nearby buildings*.
 - I have identified *all* potentially dangerous features such as unreinforced masonry chimneys, parapets and walls *on all adjacent or nearby buildings* that have potentially dangerous features which threaten the subject building or its occupants.

Buildings which I have identified in the above category are:

- i.
- ii.
- iii.

- I have advised the owner of the subject building that approval for resumption of occupancy and use will be subject to Council approval to remove the red or yellow safety notices from the buildings listed above.

Signed Chartered Professional Engineer

Date

APPENDIX 22

CHRISTCHURCH CITY COUNCIL – RESUMPTION OF OCCUPANCY AND USE OF EARTHQUAKE DAMAGED BUILDINGS

Christchurch City Council

Resumption of occupancy and use of earthquake-damaged buildings Section 1: Buildings included in the scope of s122 of the Building Act 2004

Purpose

Christchurch City Council is aware that many owners of buildings damaged in the recent earthquakes are keen to resume occupation and use as soon as possible. The following procedures have been specifically developed to allow that.

Earthquake-prone building status

The red or yellow safety notices may be taken to mean that the buildings are dangerous according to the Building Act as amended by Order in Council on 16 September 2010. (These notices remain in force until at least 3 November 2010 and may be renewed beyond that date.)

All buildings issued with red or yellow safety notices that have suffered structural damage will also be regarded by the Council as potentially earthquake-prone under s122 of the Building Act 2004. As such they will be subject to the Christchurch City Council Policy on Earthquake-prone buildings 2010.

Options for owners to resume occupancy and use

The conditions for removal of red and yellow safety notices given below are based on two main options for owners:

1. Option 1:
 - a. Interim securing to bring the building back to pre-earthquake condition,
followed by:
 - b. Strengthening (or other improvement in structural performance) to at least the standard required by the *Christchurch City Council Earthquake-prone, Dangerous and Insanitary Buildings Policy 2010 (CCC EPB Policy)* by 4 September 2013.

Note: Interim securing work is not regarded as an alteration in terms of s112 of the Building Act 2004 and will not require a building consent.

2. Option 2:
 - a. Strengthening (or other improvement in structural performance) to at least the standard required by the CCC EPB Policy.

Note: An owner may elect to demolish the building or strengthen/improve the structural performance beyond the minimum requirements.

Conditions for removal of safety notices and resumption of occupancy and use

The following conditions apply to the removal of red and yellow safety notices that were placed on buildings following the 4 September 2010 earthquake.

1. **Buildings with Green Safety Notices**
 - a. *No action required. Notice may be removed or stay at discretion of owner.*
 - b. *Buildings with green safety notices which were identified as earthquake-prone or potentially earthquake-prone before 4 September 2010 will retain that status and will be subject to the requirements of the CCC EPB Policy.*
2. **Buildings with Red or Yellow Safety Notices**
 - a. *Resumption of occupancy and use of buildings with red or yellow safety notices will be permitted only after Council approval is obtained in writing.*
 - b. *Such approval will be given when the following conditions are met:*

Option 1:

- *Structural integrity and performance.* Where the integrity of the building (or part of the building) was materially affected by the Darfield earthquake or any aftershocks, *interim securing measures* must be taken to restore the structural integrity and expected structural performance of the building to at least the condition that existed prior to the earthquake of 4 September 2010.
 - *Potentially dangerous features.* Potentially dangerous features on the building such as unreinforced masonry chimneys, parapets and walls must be removed or the features secured so that their integrity and level of structural performance is consistent with that generally achieved in other parts of the building, and so reduces the danger to people's safety and of damage to other property.
 - *Threat from nearby buildings.* Where there is a threat to a building or its occupants as a result of potentially dangerous features such as unreinforced masonry chimneys, parapets and walls *on other buildings*: Either:
 - The potentially dangerous features *on all other buildings* must be removed or the features secured so that their integrity and level of structural performance is consistent with that generally achieved in other parts of the building, and so reduces the danger to people's safety and of damage to other property.
- Or:
- Protective measures must be installed on the subject building that protect its occupants in the event of collapse of the potentially dangerous features *on any other building*.

Option 2:

- The structural performance of the building must be improved to at least the standard required by the CCC EPB Policy. *(This is as nearly as is reasonably practicable to 67% of new building standard.)*

- *Threat from nearby buildings.* Threats from neighbouring buildings shall be treated in a similar manner as for option 1.
- c. *A Chartered Professional Engineer with appropriate qualifications and experience in the structural design of buildings for earthquake must sign and submit the attached statement.*
- d. *Until receipt and acceptance by Christchurch City Council of the signed statement the building will be classed as dangerous in terms of s121 of the Building Act 2004. If no action is taken on a building within a reasonable time, Council will exercise its powers under s126 of the Building Act 2004 to remove the danger.*
- e. *Every building that is within the scope of s122 of the Building Act 2004 and was issued with a yellow or red safety notice during the state of emergency or subsequently will be regarded as potentially earthquake-prone. As such it will be subject to the CCC EPB policy unless it can be shown that it is not likely to collapse and cause death, injury etc in a moderate earthquake. (Normal criteria in section 122 defining an earthquake-prone building applies.)*

Note:

In framing these conditions the Council has interpreted ss 121(1)(c) and (d) of the Building Act 2004 to mean that when the conditions for removal of the red and yellow safety notices are met, the risks *“that the building could collapse or otherwise cause injury or death to any person in the building as a result of an earthquake that generates shaking that is less than a moderate earthquake”* or *“that other property could collapse or otherwise cause injury or death to any person in the building”* are tolerable in the context of other risks.

Note to structural engineers:

Judging by the impact on buildings in Christchurch city, the earthquake of 4 September 2010 is believed to be equivalent to no more than a moderate earthquake. Furthermore, survival without collapse cannot be taken as conclusive proof that a building will survive other earthquakes with similar overall levels of ground shaking. Factors such as directionality and duration of strong shaking need to be taken into account. Christchurch City Council believes that strengthening to as nearly as is reasonably practicable to that of a new building is the best course of action. Achievement of as nearly as is reasonably practicable to 67% of a new building standard will be accepted for strengthening / structural improvement of earthquake-prone buildings.

Statement by Chartered Professional Engineer in respect of the building at:

(Building Address).....

(Business Name *if applicable*)

I, (name), am a Chartered Professional Engineer (No.....,) with relevant experience in the structural design of buildings for earthquake actions.

I have been engaged to provide advice to the owner on the interim securing / strengthening of the above building following the earthquake of 4 September 2010.

I am aware of all the measures taken to secure or strengthen the building (the work) which were carried out by (Name and contact address of contractor).

I have inspected the work on completion and am satisfied on reasonable grounds that:

- a. *Structural integrity and performance.* Where the structural integrity and/or structural performance of the building (or part of the building) was materially affected by the Darfield earthquake or any aftershocks to date, interim securing measures have been taken to restore the structural integrity and performance of the building to at least the condition that existed prior to the earthquake of 4 September 2010.
- b. *Potentially dangerous features.* Potentially dangerous features on the building such as unreinforced masonry chimneys, parapets and walls have been removed or secured so that their integrity and level of structural performance is consistent with that generally achieved in other parts of the building, and so reduces the danger to people's safety and of damage to other property.
- c. *Threat from nearby buildings.* (Delete one if not applicable)
 - Protective measures installed on the subject building are sufficient in nature and extent to protect its occupants in the event of collapse of potentially dangerous features on *adjacent or nearby buildings*.
 - I have identified *all* potentially dangerous features such as unreinforced masonry chimneys, parapets and walls *on all adjacent or nearby buildings* that have potentially dangerous features which threaten the subject building or its occupants.
Buildings which I have identified in the above category are:
 - i.
 - ii.
 - iii.
 - I have advised the owner of the subject building that approval for resumption of occupancy and use will be subject to Council approval to remove the red or yellow safety notices from the buildings listed above.

Signed Chartered Professional Engineer

Date

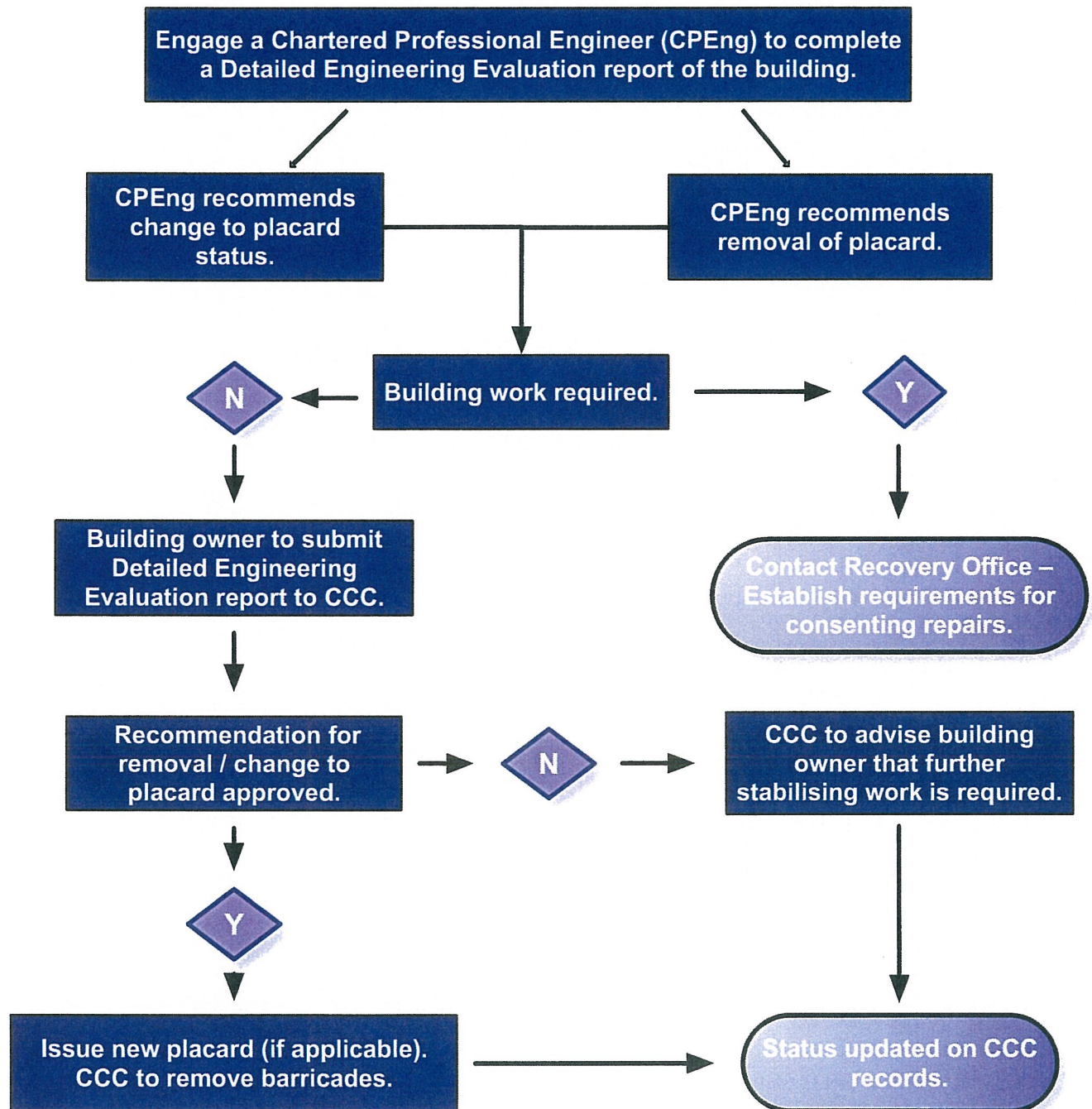
APPENDIX 23

BUILDING ASSESSMENT – REQUEST FOR REMOVAL OF PLACARD/CHANGE OF STATUS RED TO GREEN

Building Assessment

Request for Removal of Placard / Change of Status Red to Green

Information for Building Owners and Occupiers of Commercial Premises and multi-storey buildings.



The Building Act (2004) still applies. A building consent for urgent building work can be obtained at the Recovery Office based in the new City Council buildings in Hereford Street. These consents will be subject to safe practice conditions such as disconnecting the power and drains, along with appropriate health and safety practices. Heritage conditions will apply.

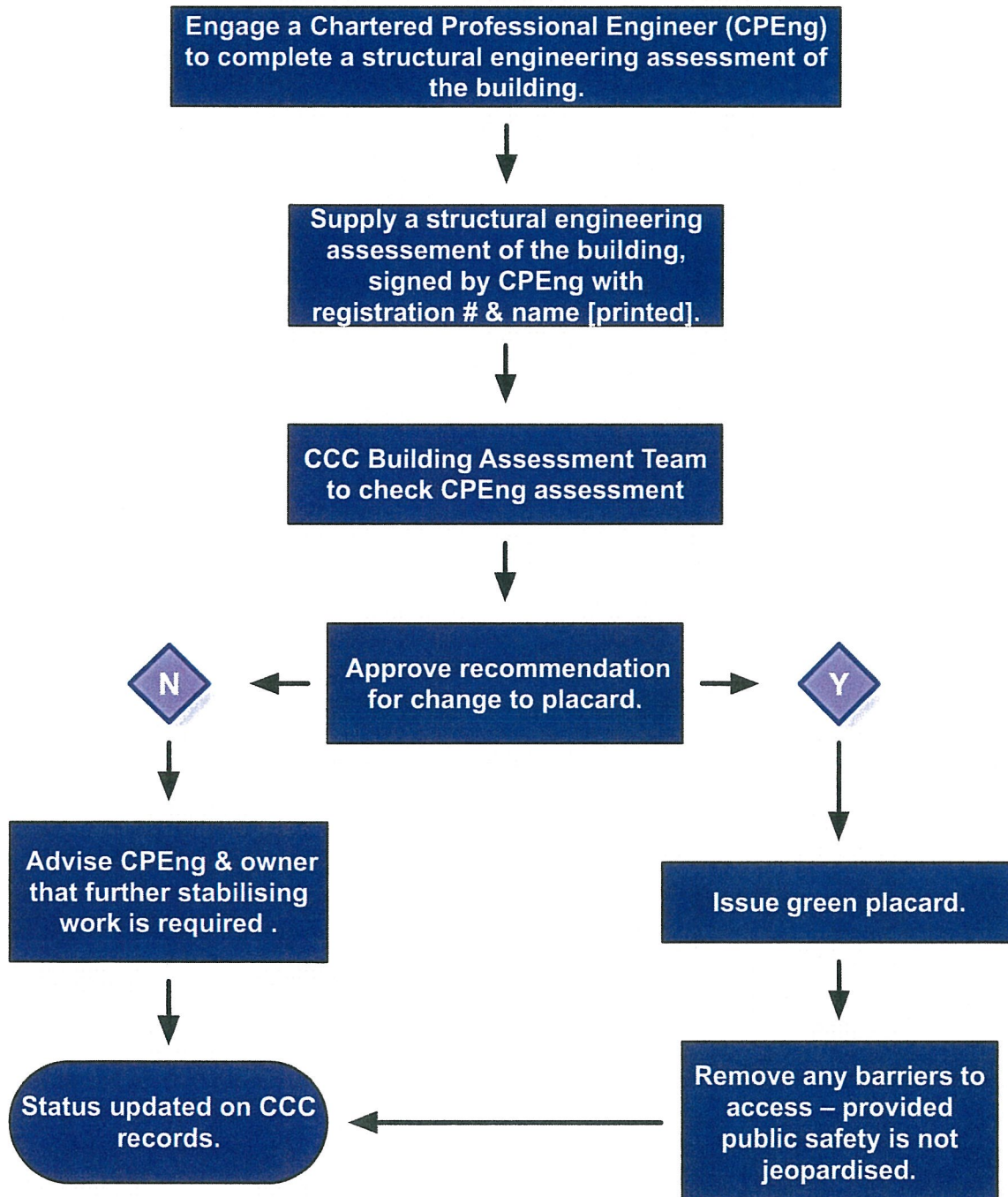
*Use IPENZ engineer referral service, phone 0800 2424 4357 or refer to page 415 in the Christchurch Yellow Pages for a structural or civil engineer

APPENDIX 24

BUILDING ASSESSMENT – REQUEST FOR PLACARD FROM YELLOW TO GREEN

Building Assessment Request for Placard from Yellow to Green

Information for Building Owners and Occupiers of Commercial Premises and multi-storey buildings.



The Building Act (2004) still applies. A building consent for urgent building work can be obtained at the new City Council buildings in Hereford Street. These consents will be subject to safe practice conditions such as disconnecting the power and drains, along with appropriate health and safety practices. Heritage conditions will apply.

*Use IPENZ engineer referral service, phone 0800 2424 4357 or refer to page 415 in the Christchurch Yellow Pages for a structural or civil engineer.

APPENDIX 25

GUIDANCE FOR MONITORING AND REVIEWING BARRICADES

Guidance For Monitoring And Reviewing Barricades

Barricade Purpose - **Protect people from dangerous buildings**

Issues to be considered

- The longer the period damaged buildings remain unattended to the greater the risk
- Factors determining the necessary clearance from buildings
 - Type of potential failures
 - Total building (1.5 building height)
 - Top storey only (1.5 top storey height)
 - Parapet only (2 metres outside veranda fascia or 3 metres from building)
 - Mass of material in potential failures (add base width of potential material pile to above)
- Interaction of barricades with traffic and pedestrians
 - Traffic volume
 - Route complexity – road alignment, cross roads, traffic lights etc.
 - Further barricades are from building the greater the potential conflict
 - More street crossing points may be needed
- Differing levels of protection required for pedestrians, people with disabilities, cyclists and motorists
 - Protection to be provided for visually impaired pedestrians? (instances have been seen)
 - Should separation distances be different for pedestrians than motor vehicles? (Direct pedestrians to other side of road?)
- Varying standard of barricades
 - Containers
 - Wire fences
 - Cones
 - Tape
 - Define where each is appropriate
 - The simpler the barricades the easier they are moved
 - People entering red placarded buildings
- Conflict with working areas for building and other works
 - Are TMPs being provided and approved for these activities?
 - Regular reviews needed? (say daily by vehicle – Monday and Friday by foot)
- Knowledge of which buildings need barricading
 - Information available from database(s)
- Removal of placards by unofficial sources
 - Absence of placard does not necessarily mean no barricade needed

APPENDIX 26

PROCEDURE FOR PERMITTING THE REMOVAL OF TEMPORARY FENCING/BARRICADES FROM AROUND DAMAGED BUILDINGS

Procedure for Permitting the Removal of Temporary Fencing/ Barricades from Around Damaged Buildings

Buildings with Green Stickers

To get temporary traffic management such as tape, fences/ barricades removed from a building with a green sticker the following process must be followed:

1. The property owner is to contact the CCC Building Evaluation Team, stating that their building has a green sticker and they would like the tape/ fencing/ barricades removed.
2. The CCC Building Evaluation Team will check the building status. If the building has a green sticker and is a stand alone building, or if the building has a green sticker and is adjacent to buildings that also have green stickers then the process continues to Step 4.
3. If the building has a green sticker and adjacent to buildings that have either red or yellow stickers then refer to the process for *Buildings with Yellow or Red Stickers*.
4. Once the CCC Building Evaluation Team is satisfied that the building is safe and that it does not pose a threat to the public safety they will contact the CCC Traffic Management Team.
5. CCC Traffic Management Team instructs the maintenance contractor to remove the tape/ fencing/ barricade

Buildings with Yellow or Red Stickers

To get temporary traffic management such as tape, fences/ barricades removed from a building with either a yellow or red sticker the following process must be followed:

1. The building is to be made safe
2. The property owner arranges for a suitably qualified engineer/ inspector to assess the building.
3. The engineer/ inspector produces a structural assessment report stating that the building is safe to occupy and does not pose a threat to public safety
4. The property owner presents the structural assessment report to the CCC Building Evaluation Team.
5. Once the CCC Building Evaluation Team is satisfied that the building is safe and that it does not pose a threat to the public safety they will contact the CCC Traffic Management Team (this step may include an inspection by the CCC Building Evaluation Team and/or Traffic Management Team).
6. CCC Traffic Management Team instructs the maintenance contractor to remove the tape/ fencing/ barricade.

Contact: CCC Building Evaluation Team
941 8698 or 941 8666

APPENDIX 27

EARTHQUAKE DAMAGE REPORT – CATHEDRAL SQUARE, 29 DECEMBER 2010

29 December 2010

Mr Richard Gant
Christchurch City Council
53 Herford Street
PO Box 237
Christchurch 8140

Dear Richard

Earthquake Damage Report

As instructed we walked the proposed New Year's Eve Concert 2010 route to assess, Earthquake related, structural damage that could cause harm to the general public attending the event.

Background

We walked the site on 29 December 2010 in a anti-clockwise route following the December 26th earthquake and covered:

- Worcester Street between Oxford and Manchester
- Colombo Street between Hereford and Gloucester

Our inspection was limited to a visual, external, inspection from ground level. No linings or finishes were removed to expose structural elements, no analysis was undertaken and no structural drawings were available or reviewed.

This report focuses solely on public safety issues for the New Year's Eve event.

Summary

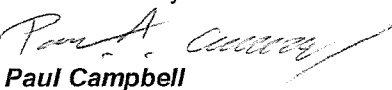
No uncontained damage that would effect the safe running of the New Year's Eve Concert was observed.

- The Regent on Worcester Street had had its parapet partially removed and the hoardings are due to be removed 30/12/10 prior to the event. We are satisfied that the building works have removed the danger to the public.
- The façade of the BNZ building corner of Colombo and Hereford Street is undergoing inspection by abseil specialists, no new damage has been detected and the existing barricade is sufficient.
- The Press building is undergoing work at the moment. Should this work not be finished by New Year's Eve it would be prudent to extend the hording by 1m on the Square side.
- A hording exists adjacent Colonial Lane Backpackers, as the public will no congregate in this area there is no additional risk
- The hording containing the un-occupied building 53 Cathedral Square is sufficient.

Next Steps

We consider that there is no Structural reason to cancel the Cathedral Square New Year's Eve concert.

Yours sincerely


Paul Campbell

Principal Structural Engineer, CPEng 197688

Reviewed


John Mitchell

Structural Engineer, CPEng

APPENDIX 28

**CHRISTCHURCH CITY COUNCIL MEDIA RELEASE – 9.30PM 26 DECEMBER
2010**

You are here: [Home](#) | [The Council](#) | [News & media](#) | [Media releases](#) | [2010](#) | Central City cordons reduced

Central City cordons reduced

9:30pm 26 December 2010

Cordons in the Central City have been reduced this evening as emergency services complete public safety assessments around buildings damaged by the series of Boxing Day earthquakes. Closures will remain in place overnight in the following locations:

- Cashel Street (City Mall) from Oxford Terrace to Colombo Street
- Gloucester Street from Manchester Street to Latimer Square
- Manchester Street from Worcester Street to Gloucester Street
- Manchester Street from Hereford Street to Cashel Street (existing closure from previous damage)
- Tramway Lane

Closures on Lichfield Street and Colombo Street have now been lifted and Hereford Street, from Oxford Terrace to Colombo Street will reopen to traffic before midnight. Police will staff the cordons overnight and Civil Defence assessors will continue working in these areas in the morning. Cordons introduced elsewhere in the Central City today have been reduced to areas around individual buildings.

The work being carried out today in the Central City by Civil Defence building assessors, assisted by the New Zealand Fire Service, is an initial check of the extent of damage, with the aim of protecting public safety on footpaths and roads adjacent to damaged buildings.

It is the responsibility of building owners, working with their insurers, to have their buildings structurally assessed by engineers. Any remediation work necessary will be carried out by the building owner and their insurer.

A Civil Defence Emergency Operations Centre (EOC) has been set up at the Christchurch City Council's Hereford Street building to coordinate emergency services. Damage has largely been limited to the Central City, with no major damage reported in Christchurch's suburbs. Civil Defence staff have received no reports of injuries as a result of the quakes. City infrastructure – water, wastewater and stormwater networks – were undamaged during the recent quakes. The EOC will remain open until all of the public safety assessments in the Central City have been completed. Residents are advised to use the 111 emergency call system if they believe they are in immediate danger.

Earthquake background from Environment Canterbury:

- The earthquakes being felt in Christchurch today are still part of the normal aftershock sequence from September's magnitude 7.1 earthquake.
- The last three to four weeks have been relatively quiet, and these are the largest aftershocks since mid-November.
- It is not unusual to get significant aftershocks several months after a large earthquake, and it is not unusual to have them in "swarms" or groups as we are having today.
- These aftershocks are much closer to Christchurch than many of the other aftershocks we have had, so they are felt more strongly.
- The earthquakes are not related to the magnitude 7.6 earthquake that occurred in Vanuatu earlier this morning.
- There is no indication that a large earthquake (similar to the September earthquake) is going to occur following these aftershocks.

- People should take normal precautions, such as making sure heavy objects are not placed high up on shelves, securing fragile objects, having food and water stored, and a battery-powered radio and torches handy.

Map of road closures as at 2100 hrs

Central City building damage information – call 941 6789

Owners of buildings in Central City are advised to call Council staff on 941 6789 to report/discuss damage

Authorising Unit: Communications

Last reviewed: Sunday, December 26, 2010

Next review: Sunday, June 26, 2011

Keywords: civil defence, earthquake, media

Monday, July 11, 2011 9:31:57 AM New Zealand Local Time.



Christchurch
City Council 

APPENDIX 29

CHRISTCHURCH CITY COUNCIL MEDIA RELEASE – 27 DECEMBER 2010

You are here: [Home](#) | [The Council](#) | [News & media](#) | [Media releases](#) | [2010](#) | Central City business owners urged to check their buildings

Central City business owners urged to check their buildings

27 December 2010

Owners of buildings in areas affected by yesterday's aftershocks are being asked to check the safety of their buildings.

Deputy Mayor Ngaire Button says while most of the city is open for business, the Cashel Street area between Oxford Terrace and Colombo Street and around Hereford street has sustained some damage and has been cordoned off.

"We need the owners to bring in their structural engineers to assess the buildings and to ensure safety measures are in place. They also need to ensure the security of their property or business.

"Council is working in close conjunction with Police and the Fire Service and we need the building and business owners also to get on board and work with us by having engineers assess their buildings and for them to contact their insurance companies. We do need to ensure public safety.

"Council has set up a call-in number 941 6789 to provide building and business owners with information. Anyone unsure of what should be done should make a call," says Deputy Mayor Button.

Authorising Unit: Communications

Last reviewed: Monday, December 27, 2010

Next review: Monday, June 27, 2011

Keywords: building inspection, christchurch city council, earthquake, media

Monday, July 11, 2011 9:29:50 AM New Zealand Local Time.



Christchurch
City Council 

APPENDIX 30

CANTERBURY EARTHQUAKE (BUILDING ACT) ORDER 2010

**Reprint
as at 23 December 2010**



**Canterbury Earthquake (Building
Act) Order 2010**
(SR 2010/315)

Anand Satyanand, Governor-General

Order in Council

At Wellington this 16th day of September 2010

Present:
His Excellency the Governor-General in Council

Pursuant to section 6 of the Canterbury Earthquake Response and Recovery Act 2010, His Excellency the Governor-General makes the following order acting—

- (a) on the advice and with the consent of the Executive Council;
- and

Note

Changes authorised by section 17C of the Acts and Regulations Publication Act 1989 have been made in this reprint.

A general outline of these changes is set out in the notes at the end of this reprint, together with other explanatory material about this reprint.

This order is administered by the Department of Building and Housing.

- (b) on the recommendation of the relevant Minister made in accordance with section 6(2) of that Act.

Contents

	Page
1 Title	2
2 Commencement	3
3 Expiry	3
4 Interpretation and application	3
5 Territorial authorities to which this order applies	3
6 Cases where building consent is not required	3
7 Modification of meaning of dangerous building and extent to which territorial authority can apply modified provision	4
8 Notices under section 124 of Act	4
9 Modification of powers of territorial authorities in respect of dangerous, earthquake-prone, or insanitary buildings under section 124 of Act	5
10 Modification of requirements for notice given under section 124 of Act	6
11 Modification of section 126 of Act	6
12 Building work includes demolition of building	7
13 Prohibition on using dangerous, earthquake-prone, or insanitary building under section 128 of Act	7
14 Modification of owner liability for costs of work under section 129 of Act	7
15 Extension of provision protecting territorial authority from liability under section 129 of Act	8
16 Exemption from requirement to apply under section 130 to District Court for confirmation of warrant	8
17 Extension of purpose of section 204 of Act	8
18 Definition of authorised officer extended	8
19 Modifications to Schedule 1 of Act	8

Order

- 1 **Title**
This order is the Canterbury Earthquake (Building Act) Order 2010.

Reprinted as at
23 December 2010

**Canterbury Earthquake (Building
Act) Order 2010**

cl 6

2 Commencement

This order comes into force on 16 September 2010.

3 Expiry

This order expires on the close of 16 September 2011.

4 Interpretation and application

- (1) In this order, unless the context otherwise requires—

Act means the Building Act 2004

moderate earthquake has the meaning given to it by regulation 7 of the Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005

territorial authority means a district of a territorial authority to which this order applies under clause 5.

- (2) Any term or expression that is not defined in this order, but defined in the Act or the Canterbury Earthquake Response and Recovery Act 2010, has the meaning given to it by that Act.
- (3) The modifications or extensions to the Act made by this order do not affect the text of the Act but require it to be read as if it had been amended in the manner indicated in this order.

5 Territorial authorities to which this order applies

This order applies only to districts of the following territorial authorities:

- (a) Christchurch City Council:
- (b) Selwyn District Council:
- (c) Waimakariri District Council.

6 Cases where building consent is not required

Section 41(1)(e) of the Act is extended by adding “, including under any provision of this Act as exempted, modified, or extended by the Canterbury Earthquake (Building Act) Order 2010”.

- 7 Modification of meaning of dangerous building and extent to which territorial authority can apply modified provision**
- (1) Section 121(1) of the Act is modified by adding “; or” and also by adding the following paragraphs:
- “(c) there is a risk that the building could collapse or otherwise cause injury or death to any person in the building as a result of an earthquake that generates shaking that is less than a moderate earthquake; or
 - “(d) there is a risk that other property could collapse or otherwise cause injury or death to any person in the building; or
 - “(e) a territorial authority has not been able to undertake an inspection to determine whether—
 - “(i) the building is dangerous under paragraph (a); and
 - “(ii) the territorial authority or the chief executive, as the case may be, is required to exercise powers under section 124 or 129 as modified by this order.”
- (2) Section 121(1)(c) of the Act as modified by this clause applies only for the purposes of a territorial authority exercising its powers under section 124(1)(a), (b), (c), or (d) as modified by clause 9.
- (3) Section 121(1)(d) or (e) of the Act as modified by this clause applies only for the purposes of a territorial authority exercising its powers under section 124(1)(a), (b), or (d) as modified by clause 9.
- 8 Notices under section 124 of Act**
- (1) In this clause,—
- red card** means a card—
- (a) of the kind described in the New Zealand Society for Earthquake Engineering Building Safety Evaluation Guidelines; and
 - (b) that was issued under Part 5 of the Civil Defence Emergency Management Act 2002 in relation to the Canterbury earthquake

yellow card means a card—

- (a) of the kind described in the New Zealand Society for Earthquake Engineering Building Safety Evaluation Guidelines; and
 - (b) that was issued under Part 5 of the Civil Defence Emergency Management Act 2002 in relation to the Canterbury earthquake.
- (2) A red card is deemed to be a notice issued under section 124(1)(b) of the Act that warns people not to approach the building.
 - (3) A yellow card is deemed to be a notice issued under section 124(1)(d) of the Act as modified by clause 9.
 - (4) Any restrictions on use that are described on a yellow card are deemed to be requirements of a notice issued under section 124(1)(d) of the Act as modified by clause 9.

9 Modification of powers of territorial authorities in respect of dangerous, earthquake-prone, or insanitary buildings under section 124 of Act

- (1) Section 124(1) of the Act is modified by replacing paragraph (c) with the following provisions:
 - “(c) give written notice—
 - “(i) requiring work to be carried out on the building to reduce or remove the danger or prevent the building from remaining insanitary; and
 - “(ii) requiring the work to be carried out within a time stated in the notice (which must not be less than 5 days after the notice is given under section 125); and
 - “(iii) advising the owner of the building that if the work is not carried out within the time stated in the notice,—
 - “(A) a territorial authority may carry out the work required under the notice; and
 - “(B) the owner of the building will be liable for the costs of the work carried out by the territorial authority unless the owner applies, within 5 days of the work being carried out, to a District Court for relief

from the obligation to pay the territorial
authority's costs:

- “(d) issue a notice restricting entry to a building for particular purposes or restricting entry to particular persons or groups of persons.”
- (2) A notice issued under section 124(1)(b) of the Act or section 124(1)(d) of the Act as modified by this clause—
 - (a) may be issued for a maximum period of 60 days; and
 - (b) may be renewed.
- (3) A notice issued under section 124(1)(c) of the Act as modified by this clause may be issued for such period that a territorial authority thinks fit.

10 Modification of requirements for notice given under section 124 of Act

Section 125(1) of the Act is modified by replacing paragraph (b) with the following paragraphs:

- “(b) state whether the owner of the building must obtain a building consent in order to carry out the work required by the notice; and
- “(c) if the owner is not required by the territorial authority to obtain a building consent, state—
 - “(i) the conditions (if any) in respect of the work required by the notice; and
 - “(ii) that the work must be carried out in accordance with the guidelines (if any) issued by the territorial authority on how building work to reduce or remove the danger or to demolish buildings should be carried out in accordance with the building code.”

11 Modification of section 126 of Act

Section 126 of the Act is modified by adding the following subsections:

- “(4) Subsections (1) to (3) do not apply to a territorial authority that has issued a notice under section 124(1)(c) as modified by the Canterbury Earthquake (Building Act) Order 2010.

- “(5) If a territorial authority has issued a notice under section 124(1)(c) as modified by the Canterbury Earthquake (Building Act) Order 2010 and the work required under the notice has not been carried out within the time stated in the notice, the territorial authority may carry out the work required under the notice.
- “(6) The owner of a building is liable for the costs of the work carried out by the territorial authority unless the owner—
 - “(a) applies to a District Court, within 5 days of the work being carried out by the territorial authority, for relief from the obligation to pay the territorial authority’s costs; and
 - “(b) the application to the District Court is successful.
- “(7) If the owner is liable for the costs of the work carried out by the territorial authority, the territorial authority may recover its costs from the owner, and the amount recoverable by the territorial authority becomes a charge on the land on which the work was carried out.”

12 Building work includes demolition of building

The reference in section 127 of the Act to section 126 is modified to mean section 126 or 129 as each of those provisions are modified by this order.

13 Prohibition on using dangerous, earthquake-prone, or insanitary building under section 128 of Act

Section 128 of the Act is extended so that it applies to any person who fails to comply with section 124(1)(d) of the Act as modified by this order.

14 Modification of owner liability for costs of work under section 129 of Act

- (1) Section 129(3) of the Act is modified by replacing “If the territorial authority takes action under subsection (2)” with “If the territorial authority takes action under subsection (2) and either of the events described in subsection (3A) has occurred”.
- (2) Section 129 is modified by inserting the following subsection after subsection (3):

“(3A) The events are—

- “(a) the owner of the building has failed to apply to a District Court, within 5 days of the work being carried out, for an order that the owner is not liable for the costs of the territorial authority exercising its powers under this section:
- “(b) the owner’s application to a District Court for an order that the owner is not liable for the costs of the territorial authority exercising its powers under this section is unsuccessful.”

15 Extension of provision protecting territorial authority from liability under section 129 of Act

Section 129(4) of the Act is extended by adding “or any liability arising from any work that the territorial authority has, in good faith, carried out under section 126 as modified by the Canterbury Earthquake (Building Act) Order 2010”.

16 Exemption from requirement to apply under section 130 to District Court for confirmation of warrant

A territorial authority is exempted from the requirement in section 130 of the Act to apply to the District Court for confirmation of a warrant issued under section 129(2) of the Act.

17 Extension of purpose of section 204 of Act

The purpose of section 204 of the Act as set out in section 204(1) is extended by adding “; and” and also by adding the following paragraph:

- “(d) monitor earthquake-affected buildings.”

18 Definition of authorised officer extended

The definition of authorised officer in section 222(4) of the Act is extended so that an authorised officer includes any person accompanying the authorised officer.

19 Modifications to Schedule 1 of Act

- (1) Schedule 1 of the Act is modified so that the provisions in paragraph (a)(iv) relating to water storage heaters are disappplied.

Reprinted as at
23 December 2010

**Canterbury Earthquake (Building
Act) Order 2010**

cl 19

- (2) Schedule 1 of the Act is extended by inserting the following paragraph after paragraph (a):

“(aab) the replacement or repositioning of water heaters carried out in accordance with the Plumbers, Gasfitters, and Drainlayers Act 2006, except for systems that—

“(i) are not open-vented; or

“(ii) have an uncontrolled heat source; or

“(iii) have a controlled heat source other than gas or electricity.”.

(3) *[Revoked]*

(4) *[Revoked]*

(5) *[Revoked]*

(6) *[Revoked]*

- (7) In the event of any inconsistency between this clause and any provision of Schedule 1 of the Act, this clause prevails.

Clause 19(3): revoked, on 23 December 2010, by clause 4 of the Canterbury Earthquake (Building Act) Amendment Order 2010 (SR 2010/466).

Clause 19(4): revoked, on 23 December 2010, by clause 4 of the Canterbury Earthquake (Building Act) Amendment Order 2010 (SR 2010/466).

Clause 19(5): revoked, on 23 December 2010, by clause 4 of the Canterbury Earthquake (Building Act) Amendment Order 2010 (SR 2010/466).

Clause 19(6): revoked, on 23 December 2010, by clause 4 of the Canterbury Earthquake (Building Act) Amendment Order 2010 (SR 2010/466).

Rebecca Kitteridge,
Clerk of the Executive Council.

Issued under the authority of the Acts and Regulations Publication Act 1989.
Date of notification in *Gazette*: 16 September 2010.

Notes	Canterbury Earthquake (Building Act) Order 2010	Reprinted as at 23 December 2010
-------	---	-------------------------------------

Contents

- 1 General
- 2 Status of reprints
- 3 How reprints are prepared
- 4 Changes made under section 17C of the Acts and Regulations Publication Act 1989
- 5 List of amendments incorporated in this reprint (most recent first)

Notes

1 *General*

This is a reprint of the Canterbury Earthquake (Building Act) Order 2010. The reprint incorporates all the amendments to the order as at 23 December 2010, as specified in the list of amendments at the end of these notes.

Relevant provisions of any amending enactments that contain transitional, savings, or application provisions that cannot be compiled in the reprint are also included, after the principal enactment, in chronological order. For more information, see <http://www.pco.parliament.govt.nz/reprints/>.

2 *Status of reprints*

Under section 16D of the Acts and Regulations Publication Act 1989, reprints are presumed to correctly state, as at the date of the reprint, the law enacted by the principal enactment and by the amendments to that enactment. This presumption applies even though editorial changes authorised by section 17C of the Acts and Regulations Publication Act 1989 have been made in the reprint.

This presumption may be rebutted by producing the official volumes of statutes or statutory regulations in which the principal enactment and its amendments are contained.

3 *How reprints are prepared*

A number of editorial conventions are followed in the preparation of reprints. For example, the enacting words are not included in Acts, and provisions that are repealed or revoked

are omitted. For a detailed list of the editorial conventions, see <http://www.pco.parliament.govt.nz/editorial-conventions/> or Part 8 of the *Tables of New Zealand Acts and Ordinances and Statutory Regulations and Deemed Regulations in Force*.

4 *Changes made under section 17C of the Acts and Regulations Publication Act 1989*

Section 17C of the Acts and Regulations Publication Act 1989 authorises the making of editorial changes in a reprint as set out in sections 17D and 17E of that Act so that, to the extent permitted, the format and style of the reprinted enactment is consistent with current legislative drafting practice. Changes that would alter the effect of the legislation are not permitted.

A new format of legislation was introduced on 1 January 2000. Changes to legislative drafting style have also been made since 1997, and are ongoing. To the extent permitted by section 17C of the Acts and Regulations Publication Act 1989, all legislation reprinted after 1 January 2000 is in the new format for legislation and reflects current drafting practice at the time of the reprint.

In outline, the editorial changes made in reprints under the authority of section 17C of the Acts and Regulations Publication Act 1989 are set out below, and they have been applied, where relevant, in the preparation of this reprint:

- omission of unnecessary referential words (such as “of this section” and “of this Act”)
- typeface and type size (Times Roman, generally in 11.5 point)
- layout of provisions, including:
 - indentation
 - position of section headings (eg, the number and heading now appear above the section)
- format of definitions (eg, the defined term now appears in bold type, without quotation marks)
- format of dates (eg, a date formerly expressed as “the 1st day of January 1999” is now expressed as “1 January 1999”)

- position of the date of assent (it now appears on the front page of each Act)
- punctuation (eg, colons are not used after definitions)
- Parts numbered with roman numerals are replaced with arabic numerals, and all cross-references are changed accordingly
- case and appearance of letters and words, including:
 - format of headings (eg, headings where each word formerly appeared with an initial capital letter followed by small capital letters are amended so that the heading appears in bold, with only the first word (and any proper nouns) appearing with an initial capital letter)
 - small capital letters in section and subsection references are now capital letters
- schedules are renumbered (eg, Schedule 1 replaces First Schedule), and all cross-references are changed accordingly
- running heads (the information that appears at the top of each page)
- format of two-column schedules of consequential amendments, and schedules of repeals (eg, they are rearranged into alphabetical order, rather than chronological).

5 *List of amendments incorporated in this reprint
(most recent first)*

Canterbury Earthquake (Building Act) Amendment Order 2010 (SR 2010/466)

APPENDIX 31

EXTRACTS FROM LEGISLATION

This document shows how the Canterbury Earthquake (Building Act) Order 2010 (**Order**) interacts with the Building Act 2004 (**Act**).

The modifications made to the Act by the Order are in **red**, or have a ~~strike through~~. The clauses of the Order that modify the Act, without specifically altering the text, are included in boxes below the relevant section of the Act.

The Order comes into force on 16 September 2010 and expires on 16 September 2011.

The Order applies to Christchurch City Council, Selwyn District Council and Waimakariri District Council.

Building Act 2004

41 Building consent not required in certain cases

- (1) Despite section 40, a building consent is not required in relation to—
 - (a) a Crown building or Crown building work to which, under section 6, this Act does not apply; or
 - (b) any building work described in Schedule 1; or
 - (c) any building work in respect of which a building consent cannot practicably be obtained in advance because the building work has to be carried out urgently—
 - (i) for the purpose of saving or protecting life or health or preventing serious damage to property; or
 - (ii) in order to ensure that a specified system in a building that is covered by a compliance schedule, or would be covered if a compliance schedule were issued in respect of the building, is maintained in a safe condition or is made safe; or
 - (d) any energy work that, under section 43, does not require a building consent; or
 - (e) any building work that a territorial authority is authorised to carry out under this Act, **including under any provision of this Act as exempted, modified, or extended by the Canterbury Earthquake (Building Act) Order 2010.**
- (2) The Governor-General may, by Order in Council, add any building work or class of building works to Schedule 1 as being building work for which a building consent is not required.

121 Meaning of dangerous building

- (1) A building is dangerous for the purposes of this Act if,—
 - (a) in the ordinary course of events (excluding the occurrence of an earthquake), the building is likely to cause—
 - (i) injury or death (whether by collapse or otherwise) to any persons in it or to

persons on other property; or

(ii) damage to other property; or

- (b) in the event of fire, injury or death to any persons in the building or to persons on other property is likely because of fire hazard or the occupancy of the building; or
- (c) there is a risk that the building could collapse or otherwise cause injury or death to any person in the building as a result of an earthquake that generates shaking that is less than a moderate earthquake; or
- (d) there is a risk that other property could collapse or otherwise cause injury or death to any person in the building; or
- (e) a territorial authority has not been able to undertake an inspection to determine whether—
 - (i) the building is dangerous under paragraph (a); and
 - (ii) the territorial authority or the chief executive, as the case may be, is required to exercise powers under section 124 or 129 as modified by this order.

7 Modification of meaning of dangerous building and extent to which territorial authority can apply modified provision

- (2) Section 121(1)(c) of the Act as modified by this clause applies only for the purposes of a territorial authority exercising its powers under section 124(1)(a), (b), (c), or (d) as modified by clause 9.
- (3) Section 121(1)(d) or (e) of the Act as modified by this clause applies only for the purposes of a territorial authority exercising its powers under section 124(1)(a), (b), or (d) as modified by clause 9.

8 Notices under section 124 of Act

- (1) In this clause,—

red card means a card—

- (a) of the kind described in the New Zealand Society for Earthquake Engineering Building Safety Evaluation Guidelines; and
- (b) that was issued under Part 5 of the Civil Defence Emergency Management Act 2002 in relation to the Canterbury earthquake

yellow card means a card—

- (a) of the kind described in the New Zealand Society for Earthquake Engineering Building Safety Evaluation Guidelines; and
 - (b) that was issued under Part 5 of the Civil Defence Emergency Management Act 2002 in relation to the Canterbury earthquake.
- (2) A red card is deemed to be a notice issued under section 124(1)(b) of the Act that warns people not to approach the building.
 - (3) A yellow card is deemed to be a notice issued under section 124(1)(d) of the Act as modified by clause 9.
 - (4) Any restrictions on use that are described on a yellow card are deemed to be requirements of a notice issued under section 124(1)(d) of the Act as modified by clause

- (2) For the purpose of determining whether a building is dangerous in terms of subsection (1)(b), a territorial authority—
- (a) may seek advice from members of the New Zealand Fire Service who have been notified to the territorial authority by the Fire Service National Commander as being competent to give advice; and
 - (b) if the advice is sought, must have due regard to the advice.

124 Powers of territorial authorities in respect of dangerous, earthquake-prone, or insanitary buildings

- (1) If a territorial authority is satisfied that a building is dangerous, earthquake prone, or insanitary, the territorial authority may—
- (a) put up a hoarding or fence to prevent people from approaching the building nearer than is safe;
 - (b) attach in a prominent place on, or adjacent to, the building a notice that warns people not to approach the building;
 - ~~(c) give written notice requiring work to be carried out on the building, within a time stated in the notice (which must not be less than 10 days after the notice is given under section 125), to—~~
 - ~~(i) reduce or remove the danger; or~~
 - ~~(ii) prevent the building from remaining insanitary.~~
 - (c) give written notice—
 - (i) requiring work to be carried out on the building to reduce or remove the danger or prevent the building from remaining insanitary; and
 - (ii) requiring the work to be carried out within a time stated in the notice (which must not be less than 5 days after the notice is given under section 125); and
 - (iii) advising the owner of the building that if the work is not carried out within the time stated in the notice,—
 - (A) a territorial authority may carry out the work required under the notice; and
 - (B) the owner of the building will be liable for the costs of the work carried out by the territorial authority unless the owner applies, within 5 days of the work being carried out, to a District Court for relief from the obligation to pay the territorial authority's costs:
 - (d) issue a notice restricting entry to a building for particular purposes or restricting entry to particular persons or groups of persons.

9 Modification of powers of territorial authorities in respect of dangerous, earthquake-prone, or insanitary buildings under section 124 of Act

- (2) A notice issued under section 124(1)(b) of the Act or section 124(1)(d) of the Act as modified by this clause—
 - (a) may be issued for a maximum period of 60 days; and
 - (b) may be renewed.
- (3) A notice issued under section 124(1)(c) of the Act as modified by this clause may be issued for such period that a territorial authority thinks fit.

- (2) This section does not limit the powers of a territorial authority under this Part.
- (3) A person commits an offence if the person fails to comply with a notice given under subsection (1)(c).
- (4) A person who commits an offence under this section is liable to a fine not exceeding \$200,000.

125 Requirements for notice given under section 124

- (1) A notice given under section 124(1)(c) must—
 - (a) be fixed to the building concerned; and
 - ~~(b) state whether the owner of the building must obtain a building consent in order to carry out the work required by the notice.~~
 - (b) state whether the owner of the building must obtain a building consent in order to carry out the work required by the notice; and
 - (c) if the owner is not required by the territorial authority to obtain a building consent, state—
 - (i) the conditions (if any) in respect of the work required by the notice; and
 - (ii) that the work must be carried out in accordance with the guidelines (if any) issued by the territorial authority on how building work to reduce or remove the danger or to demolish buildings should be carried out in accordance with the building code.
- (2) A copy of the notice must be given to—
 - (a) the owner of the building; and
 - (b) an occupier of the building; and
 - (c) every person who has an interest in the land on which the building is situated under a mortgage or other encumbrance registered under the Land Transfer Act 1952; and
 - (d) every person claiming an interest in the land that is protected by a caveat lodged and in force under section 137 of the Land Transfer Act 1952; and

- (e) any statutory authority, if the land or building has been classified; and
 - (f) the New Zealand Historic Places Trust, if the building is a heritage building.
- (3) However, the notice, if fixed on the building, is not invalid because a copy of it has not been given to any or all of the persons referred to in subsection (2).

126 Territorial authority may carry out work

- (1) A territorial authority may apply to a District Court for an order authorising the territorial authority to carry out building work if any work required under a notice given by the territorial authority under section 124(1)(c) is not completed, or not proceeding with reasonable speed, within—
 - (a) the time stated in the notice; or
 - (b) any further time that the territorial authority may allow.
- (2) Before the territorial authority applies to a District Court under subsection (1), the territorial authority must give the owner of the building not less than 10 days' written notice of its intention to do so.
- (3) If a territorial authority carries out building work under the authority of an order made under subsection (1),—
 - (a) the owner of the building is liable for the costs of the work; and
 - (b) the territorial authority may recover those costs from the owner; and
 - (c) the amount recoverable by the territorial authority becomes a charge on the land on which the work was carried out.
- (4) Subsections (1) to (3) do not apply to a territorial authority that has issued a notice under section 124(1)(c) as modified by the Canterbury Earthquake (Building Act) Order 2010.
- (5) If a territorial authority has issued a notice under section 124(1)(c) as modified by the Canterbury Earthquake (Building Act) Order 2010 and the work required under the notice has not been carried out within the time stated in the notice, the territorial authority may carry out the work required under the notice.
- (6) The owner of a building is liable for the costs of the work carried out by the territorial authority unless the owner—
 - (a) applies to a District Court, within 5 days of the work being carried out by the territorial authority, for relief from the obligation to pay the territorial authority's costs; and
 - (b) the application to the District Court is successful.
- (7) If the owner is liable for the costs of the work carried out by the territorial authority, the territorial authority may recover its costs from the owner, and the amount recoverable by the territorial authority becomes a charge on the land on which the work was carried out.

127 Building work includes demolition of building

Any work required or authorised to be done under section 124(1)(c) or section 126 may include the demolition of all or part of a building.

12 Building work includes demolition of building

The reference in section 127 of the Act to section 126 is modified to mean section 126 or 129 as each of those provisions are modified by this order.

128 Prohibition on using dangerous, earthquake-prone, or insanitary building

- (1) If a territorial authority has put up a hoarding or fence in relation to a building or attached a notice warning people not to approach a building under section 124(1), no person may—
 - (a) use or occupy the building; or
 - (b) permit another person to use or occupy the building.
- (2) A person commits an offence if the person fails to comply with this section.
- (3) A person who commits an offence under this section is liable to a fine not exceeding \$200,000 and, in the case of a continuing offence, to a further fine not exceeding \$20,000 for every day or part of a day during which the offence has continued.

13 Prohibition on using dangerous, earthquake-prone, or insanitary building under section 128 of Act

Section 128 of the Act is extended so that it applies to any person who fails to comply with section 124(1)(d) of the Act as modified by this order.

129 Measures to avoid immediate danger or to fix insanitary conditions

- (1) This section applies if, because of the state of a building,—
 - (a) immediate danger to the safety of people is likely in terms of section 121 or section 122 or section 123; or
 - (b) immediate action is necessary to fix insanitary conditions.
- (2) The chief executive of a territorial authority may, by warrant issued under his or her signature, cause any action to be taken that is necessary in his or her judgment to—
 - (a) remove that danger; or
 - (b) fix those insanitary conditions.
- (3) If the territorial authority takes action under subsection (2) **and either of the events described in subsection (3A) has occurred**,—

- (a) the owner of the building is liable for the costs of the action; and
 - (b) the territorial authority may recover those costs from the owner; and
 - (c) the amount recoverable by the territorial authority becomes a charge on the land on which the building is situated.
- (3A) The events are—
- (a) the owner of the building has failed to apply to a District Court, within 5 days of the work being carried out, for an order that the owner is not liable for the costs of the territorial authority exercising its powers under this section:
 - (b) the owner's application to a District Court for an order that the owner is not liable for the costs of the territorial authority exercising its powers under this section is unsuccessful.
- (4) The chief executive of the territorial authority and the territorial authority are not under any liability arising from the issue, in good faith, of a warrant under subsection (2) or any liability arising from any work that the territorial authority has, in good faith, carried out under section 126 as modified by the Canterbury Earthquake (Building Act) Order 2010.

130 Territorial authority must apply to District Court for confirmation of warrant

- (1) If the chief executive of a territorial authority issues a warrant under section 129(2), the territorial authority, on completion of the action stated in the warrant, must apply to a District Court for confirmation of the warrant.
- (2) On hearing the application, the District Court may—
 - (a) confirm the warrant without modification; or
 - (b) confirm the warrant subject to modification; or
 - (c) set the warrant aside.
- (3) Subsection (1) does not apply if—
 - (a) the owner of the building concerned notifies the territorial authority that—
 - (i) the owner does not dispute the entry into the owner's land; and
 - (ii) confirmation of the warrant by a District Court is not required; and
 - (b) the owner pays the costs referred to in section 129(3)(a).

16 Exemption from requirement to apply under section 130 to District Court for confirmation of warrant

A territorial authority is exempted from the requirement in section 130 of the Act to apply to the District Court for confirmation of a warrant issued under section 129(2) of the Act.

204 Special powers of chief executive for monitoring performance of functions under this Act

- (1) The purpose of this section is to enable the chief executive to—
 - (a) monitor the performance by territorial authorities, building consent authorities, or regional authorities of their functions under this Act; and
 - (b) carry out the review of territorial authorities under section 276; and
 - (c) assist the Minister in determining whether to exercise the Minister's power under section 277 (which relates to the non-performance of functions by a territorial authority); **and**
 - (d) **monitor earthquake-affected buildings.**

222 Inspections by territorial authority

- (1) An authorised officer is entitled, at all times during normal working hours or while building work is being carried out,—
 - (a) to inspect—
 - (i) land on which building work is or is proposed to be carried out; and
 - (ii) building work that has been or is being carried out on or off the building site; and
 - (iii) any building; and
 - (b) to enter premises for—
 - (i) the purpose of inspecting the building; or
 - (ii) the purpose of determining whether the building is dangerous, earthquake prone, or insanitary within the meaning of subpart 6 of Part 2.
- (2) An authorised officer must, on entering private land under subsection (1), and when requested at any subsequent time, produce to the occupier of the land written evidence of the authorised officer's identity.
- (3) The powers conferred by this section are in addition to, and do not limit, the powers conferred by section 173 of the Local Government Act 2002.
- (4) In this section and sections 223 to 228,—

authorised officer means an officer of a territorial authority to whom either or both of the following applies:

- (a) he or she is authorised to carry out inspections; or
- (b) he or she is authorised to enter land—
 - (i) by this Act; or
 - (ii) by an order of the District Court made under section 227

inspection means the taking of all reasonable steps—

- (a) to determine whether—
 - (i) building work is being carried out without a building consent; or
 - (ii) building work is being carried out in accordance with a building consent; or
 - (iii) a notice to fix has been complied with:
- (b) to ensure that,—
 - (i) in relation to buildings for which a compliance schedule is issued, the inspection, maintenance, and reporting procedures stated in the compliance schedule are being complied with; or
 - (ii) in relation to buildings that have specified systems, the requirement for a compliance schedule is being complied with:
- (c) to enable a territorial authority to—
 - (i) identify dangerous, earthquake-prone, or insanitary buildings within its district; and
 - (ii) carry out its functions or duties in relation to those buildings:
- (d) to satisfy a territorial authority as to whether a certificate of acceptance for building work should be issued under section 96.

18 Definition of authorised officer extended

The definition of authorised officer in section 222(4) of the Act is extended so that an authorised officer includes any person accompanying the authorised officer.

Schedule 1

Exempt building work

s 41(1)(b)

A building consent is not required for the following building work:

- (a) any lawful repair and maintenance using comparable materials, or replacement with a comparable component or assembly in the same position, of any component or assembly incorporated or associated with a building, including all lawful repair and maintenance of that nature that is carried out in accordance with the Plumbers, Gasfitters, and Drainlayers Act 2006], except—
 - (i) complete or substantial replacement of a specified system; or
 - (ii) complete or substantial replacement of any component or assembly contributing to the building's structural behaviour or fire-safety properties; or
 - (iii) repair or replacement (other than maintenance) of any component or assembly

that has failed to satisfy the provisions of the building code for durability, for example, through a failure to comply with the external moisture requirements of the building code; or

- (iv) repair or replacement of a water storage heater connected to a solid-fuel heater or other supplementary heat exchanger (other than—
 - (A) repair of an open-vented water storage heater using the same pipework; or
 - (B) replacement of an open-vented water storage heater with a comparable heater using the same pipework):

19 Modifications to Schedule 1 of Act

- (1) Schedule 1 of the Act is modified so that the provisions in paragraph (a)(iv) relating to water storage heaters are disappplied.

(aab) the replacement or repositioning of water heaters carried out in accordance with the Plumbers, Gasfitters, and Drainlayers Act 2006, except for systems that—

- (i) are not open-vented; or
- (ii) have an uncontrolled heat source; or
- (iii) have a controlled heat source other than gas or electricity:

(ab) the opening and reinstatement of any purpose-made access point within a drainage system that—

- (i) is not a NUO system or part of a NUO system; and
- (ii) is carried out in accordance with the Plumbers, Gasfitters, and Drainlayers Act 2006:

(ac) the alteration to drains for a dwelling, if the alteration—

- (i) is of a minor nature (for example, shifting a gully trap); and
- (ii) does not include making any new connection to a service provided by a network utility operator; and
- (iii) is carried out in accordance with the Plumbers, Gasfitters, and Drainlayers Act 1976:

(ad) the alteration to existing sanitary plumbing (as defined in section 3 of the Plumbers, Gasfitters, and Drainlayers Act 1976) in a dwelling (for example, replacing a bath with a shower or moving a toilet) carried out in accordance with the Plumbers, Gasfitters, and Drainlayers Act 1976 [and that is not repair or replacement to which paragraph (a)(iv) (other than subsubparagraph (A) or (B)) applies:

(ae) the installation, replacement, or removal in any existing building of a window (including a roof window) or an exterior doorway if—

- (i) compliance with the provisions of the building code relating to structural stability is not reduced; and
 - (ii) in the case of replacement, the window or doorway being replaced satisfied the provisions of the building code for durability:
- (af) the alteration to an entrance or an internal doorway of a dwelling to improve access for persons with disabilities, if compliance with the provisions of the building code relating to structural stability is not reduced:
- (ag) the alteration to the interior of any non-residential building (for example, a shop, office, library, factory, warehouse, church, or school), if the alteration does not—
 - (i) reduce compliance with the provisions of the building code that relate to means of escape from fire, protection of other property, sanitary facilities, structural stability, fire-rating performance, and access and facilities for persons with disabilities; or
 - (ii) modify or affect any specified system:
- (b) the construction or alteration of any motorway sign, stopbank, culvert for carrying water under or in association with a road, or other similar structure that is a simple structure and is owned or controlled by a network utility operator or other similar organisation:
- (c) construction or alteration of any retaining wall that retains not more than 1.5 metres depth of ground and that does not support any surcharge or any load additional to the load of that ground (for example, the load of vehicles on a road):
- (ca) the construction, alteration, or removal of an internal wall (including the construction, alteration, or removal of an internal doorway) in any existing building if—
 - (i) compliance with the provisions of the building code relating to structural stability is not reduced; and
 - (ii) the means of escape from fire provided within the building are not detrimentally affected; and
 - (iii) the wall is not made of units of material (such as brick, burnt clay, concrete, or stone) laid to a bond in and joined together with mortar:
- (d) the construction or alteration of any wall (except a retaining wall or an internal wall)], fence (except a fence as defined in section 2 of the Fencing of Swimming Pools Act 1987), or hoarding, in each case of a height not exceeding 2 metres above the supporting ground:
- (da) the construction or alteration of any dam that is not a large dam:
- (db) the construction, installation, replacement, alteration, or removal of a retaining wall in a rural zone, if—
 - (i) the wall retains no more than 3 metres depth of ground; and
 - (ii) the distance between the wall and any legal boundary or existing building is at least 3 metres; and

- (iii) the wall has been designed by a chartered professional engineer:
- (e) the construction or alteration of any tank or pool and any structural support of the tank or pool (except a swimming pool as defined in section 2 of the Fencing of Swimming Pools Act 1987), including any tank or pool that is part of any other building for which a building consent is required,—
 - (i) not exceeding 35 000 litres capacity and supported directly by the ground; or
 - (ii) not exceeding 2 000 litres capacity and supported not more than 2 metres above the supporting ground; or
 - (iii) not exceeding 500 litres capacity and supported not more than 4 metres above the supporting ground:
- (f) the construction, alteration, or removal of any tent or marquee that has a floor area not exceeding 50 square metres if that tent or marquee is to be, or has been, used for public assembly for a period of not more than 1 month:
- (fa) the construction, alteration, or removal of any tent or marquee that has a floor area not exceeding 100 square metres if that tent or marquee is, or has been, for private use for a period of not more than 1 month:
- ~~(g) the construction or alteration of any platform, bridge, or the like from which it is not possible for a person to fall more than 1 metre even if it collapses:-~~
- (g) the construction or alteration of any platform, bridge, boardwalk, or the like from which it is not possible for a person to fall more than 1.5 metres even if it collapses:
- (h) the construction or alteration of any temporary storage stack of goods or materials:
- (i) building work in connection with any detached building (except a building that is required to be licensed in terms of the Hazardous Substances and New Organisms Act 1996 or a building closer than its own height to any residential accommodation or to any legal boundary) that—
 - (i) houses fixed plant or machinery, the only normal visits to which are intermittent visits for routine inspection and maintenance of that plant or machinery; or
 - (ii) into which, or into the immediate vicinity of which, people cannot or do not normally go; or
 - (iii) is used only by people engaged in the construction or maintenance of another building for which a building consent is required; or
 - (iv) does not exceed 1 storey, does not exceed 10 square metres in floor area, and does not contain sanitary facilities or facilities for the storage of potable water, but may contain sleeping accommodation (without cooking facilities) if the detached building is used in connection with a dwelling:
- (j) building work in connection with the closing in of an existing veranda, patio, or the like so as to provide an enclosed porch, conservatory, or the like with a floor area not exceeding 5 square metres:
- (ja) the construction, alteration, or removal of any fabric, glass, or metal awning on any building that—

- (i) is on the ground or first storey level; and
 - (ii) does not exceed 15 square metres in size:
- (jb) the construction, alteration, or removal of a pergola:
- (jc) the construction, alteration, or removal of a porch or verandah on any building where that porch or verandah—
 - (i) is on the ground or first storey level; and
 - (ii) is over a deck or a patio; and
 - (iii) does not exceed 15 square metres in size:

19 Modifications to Schedule 1 of Act

- (5) The requirement in paragraph (jc)(iii) of Schedule 1 of the Act is modified so that the porch or verandah must not exceed 20 square metres in size.

- (k) any other building work in respect of which the territorial authority (or, as the case requires, the regional authority) considers that a building consent is not necessary for the purposes of this Act because that building work—
 - (i) is unlikely to be carried out otherwise than in accordance with the building code; or
 - (ii) if carried out otherwise than in accordance with the building code, is unlikely to endanger people or any building, whether on the same land or on other property.
- (ka) the construction, alteration, or removal of a carport that does not exceed 20 square metres in size:
- (kb) the replacement or alteration of internal wall and floor linings and finishes in a dwelling:
- (kc) the installation of thermal insulation, other than in-wall foam insulation, in an existing building, except where the insulation is installed in—
 - (i) an external wall of the building; or
 - (ii) an internal wall of the building that is a fire separation (also known as a firewall):
- (kd) the making of a penetration no greater than 300 millimetres in diameter to enable the passage of pipes, cables, ducts, wires, hoses, and the like through any existing building and any associated building work, such as the weatherproofing and fireproofing of the penetration:
- (ke) the demolition of all or part of a damaged building that is detached (that is, stand-alone) and less than 3 storeys high.

19 Modifications to Schedule 1 of Act

- (7) In the event of any inconsistency between this clause and any provision of Schedule 1 of the Act, this clause prevails.

EXTRACTS FROM CANTERBURY EARTHQUAKE RECOVERY ACT 2011

4 Interpretation

(1) In this Act, unless the context otherwise requires,—

building consent has the same meaning as in section 7 of the Building Act 2004

Canterbury Earthquake Recovery Review Panel means the Canterbury Earthquake Recovery Review Panel appointed under section 72

Canterbury earthquakes means any earthquake in Canterbury on or after 4 September 2010, and includes any aftershock

CBD means the area bounded by—

- (a) the 4 avenues that are Bealey Avenue, Fitzgerald Avenue, Moorhouse Avenue, and Deans Avenue; and
- (b) Harper Avenue

CERA means the Canterbury Earthquake Recovery Authority established by the State Sector (Canterbury Earthquake Recovery Authority) Order 2011

chief executive means the chief executive of CERA

council means the Christchurch City Council, the Canterbury Regional Council (Environment Canterbury), the Selwyn District Council, or the Waimakariri District Council

council organisation has the same meaning as in section 6 of the Local Government Act 2002

dangerous building has the same meaning as in sections 121 and 122 of the Building Act 2004, but with the modifications made by clause 7(1) of the Canterbury Earthquake (Building Act) Order 2010

enactment has the same meaning as in section 29 of the Interpretation Act 1999 and also includes any plan, programme, bylaw, or rule made under any Act

greater Christchurch means the districts of the Christchurch City Council, the Selwyn District Council, and the Waimakariri District Council, and includes the coastal marine area adjacent to these districts

land includes an interest in land

Minister means the Minister for Canterbury Earthquake Recovery

modify, in relation to a provision or liability, includes disapplying or suspending the provision or liability

network utility operator has the same meaning as it has in section 2(1) of the Resource Management Act 1991

public notice or **publicly notify** means a notice published—

- (a) in the *Gazette*; or
- (b) in a newspaper circulating in the area to which the notice relates

rebuilding includes—

- (a) extending, repairing, improving, subdividing, or converting any land, infrastructure, or other property; and
- (b) rebuilding communities

recovery includes restoration and enhancement

Recovery Plan means a Recovery Plan approved under section 21(2)

Recovery Strategy means a Recovery Strategy approved under section 11(2)

relevant Minister,—

- (a) in relation to an enactment other than this Act, means the Minister who is, with the authority of the Prime Minister, for the time being responsible for the administration of the enactment:
- (b) in relation to a bylaw made by a territorial authority or regional council, means the Minister who is, with the authority of the Prime Minister, for the time being responsible for the administration of the Act under which the bylaw is made

requiring authority has the same meaning as in section 2(1) of the Resource Management Act 1991

responsible entity means the chief executive, a council, a council organisation, a department of the Public Service, an instrument of the Crown, a Crown entity, a requiring authority, or a network utility operator

RMA document—

- (a) means any of the following under the Resource Management Act 1991:
 - (i) a regional policy statement:
 - (ii) a proposed regional policy statement:
 - (iii) a proposed plan:
 - (iv) a plan; and
 - (b) includes a change or variation to any document mentioned in paragraph (a).
- (2) In this Act, unless the context otherwise requires, **abatement notice**, **designation**, **enforcement order**, **heritage order**, **notice of requirement**, **resource consent**, and **rule** have the same meanings as in section 2(1) of the Resource Management Act 1991.

38 Works

- (1) The chief executive may carry out or commission works.
- (2) The works include (without limitation)—
 - (a) the erection, reconstruction, placement, alteration, or extension of all or any part of any building, structure, or other erection on or under land:

- (b) the demolition of all or part of a building, structure, or other erection on or under land;
 - (c) the removal and disposal of any building, structure, or other erection on or under land, or material.
- (3) The chief executive may remove fixtures and fittings from any building.
- (4) If the chief executive gives written notice to an owner of a building, structure, or other erection on or under land that demolition work is to be carried out there,—
 - (a) the owner must give notice to the chief executive within 10 days after the chief executive's notice is given stating whether or not the owner intends to carry out the works and, if the owner intends to do so, specifying a time within which the works will be carried out; and
 - (b) if the owner fails to give notice under paragraph (a) or the chief executive is not satisfied with the time specified, or the works are not carried out in the time specified or otherwise agreed, then—
 - (i) the chief executive may commission the carrying out of the works; and
 - (ii) in the case of the demolition of a building to which section 40(1) or (2) refers, the chief executive may recover the costs of carrying out the work from the owner of the dangerous building in question; and
 - (iii) the amount recoverable becomes a charge on the land on which the work was carried out.
- (5) To avoid doubt, works under this section may be undertaken on or under public or private land, and with or without the consent of the owner or occupier.
- (6) To avoid doubt, this section does not override any requirements for resource consents or building consents that may apply to works under this section, but any such requirements may be varied by Orders in Council made under this Act.

39 Provisions relating to demolition or other works

- (1) This section applies if any works are to be carried out under section 38.
- (2) The chief executive may—
 - (a) put up a hoarding or fence to prevent people from approaching works nearer than is safe;
 - (b) attach in a prominent place on, or adjacent to, the works a notice that warns people not to approach the works;
 - (c) by written notice direct an owner, occupier, or other person to leave the works or land for a specified period or until further notice;
 - (d) give written notice of the work to be carried out.
- (3) If practicable, a copy of a notice under subsection (2)(d) must be given to—
 - (a) the owner of the building or land; and

- (b) every occupier of the building or land; and
 - (c) every person who has an interest in the land on which the works are situated that is registered under the Land Transfer Act 1952; and
 - (d) every person claiming an interest in the land that is protected by a caveat lodged and in force under section 137 of the Land Transfer Act 1952.
- (4) If it is necessary to enter any land to carry out any work, any notice under subsection (2)(d) to the occupier must be given not less than 24 hours in advance.
- (5) No notice needs to be given under subsection (4) if the work is necessary because of—
- (a) sudden emergency causing or likely to cause—
 - (i) loss of life or injury to a person; or
 - (ii) damage to property; or
 - (iii) damage to the environment; or
 - (b) danger to any works or adjoining property.
- (6) The chief executive must ensure that, if the power in subsection (5) is exercised, the occupier and, if the occupier is not the owner, the owner of the land or building are informed of the exercise of that power as soon as practicable.
- (7) Any notice under subsection (2)(c) must be given at least 1 month in advance, but there is no right of appeal or objection against the notice.

40 Compensation for demolition of buildings

- (1) If the chief executive demolishes a dangerous building,—
- (a) the Crown is not liable to compensate the owner or any tenant or other occupier of the building; and
 - (b) the chief executive may recover the cost of demolition from the owner.
- (2) If the chief executive demolishes a non-dangerous building in order to demolish a dangerous building, the Crown is liable to compensate the owner of the non-dangerous building for a loss resulting from the demolition of the non-dangerous building whether or not the loss is insured in whole or in part.
- (3) If the chief executive demolishes a non-dangerous building for any other reason, and the Crown has not acquired the land on which the building is situated, the Crown is liable to compensate the owner of the non-dangerous building for a loss resulting from the demolition of the non-dangerous building whether or not the loss is insured in whole or in part.
- (4) Claims under this section must be made and determined in accordance with this section and subpart 5.

41 Compensation for damage to other property caused by demolition of building

- (1) The Crown is liable to pay compensation for negligent physical loss or damage caused to other property that results directly from the demolition of a building by the chief executive, except for damage to property that is in or on or under or part of a dangerous building.
- (2) Claims under this section must be made and determined in accordance with this section and subpart 5.

44 Temporary buildings

- (1) Despite any other enactment, the chief executive may—
 - (a) erect or authorise the erection and use of temporary buildings on any public reserve, private land, road, or street and provide for their removal; and
 - (b) validate the erection and use of any temporary building on any public reserve, private land, road, or street and provide for its removal, and in that case the erection and use of the building (whether it occurred before or after the commencement of this Act) must be treated as having been authorised by this section.
- (2) No building consent or resource consent is required for the erection or use of any temporary building under subsection (1).
- (3) If practicable, the chief executive must consult the relevant road controlling authority before exercising a power under this section in relation to a road.

46 Closing and stopping roads, etc

- (1) The chief executive may, for such period as he or she considers necessary, totally or partially prohibit or restrict public access, with or without vehicles, to any road or public place within greater Christchurch.
- (2) The chief executive may close a road or divert or control the traffic on any road while any work or investigation affecting the road is being undertaken.
- (3) The chief executive may, by giving public notice or in any other manner that he or she determines, stop any road or part of a road in greater Christchurch.
- (4) The stopping of a road under subsection (3) has effect as if the road had been stopped in accordance with section 342 and Schedule 10 of the Local Government Act 1974 and as if the chief executive were a council within the meaning of that section.
- (5) The chief executive must consult the relevant road controlling authority—
 - (a) before stopping a road or part of a road under this section:
 - (b) if practicable, before exercising any other power under this section in relation to a road.
- (6) To avoid doubt,—
 - (a) there is no right of appeal or objection against a decision made under subsection (3):
 - (b) nothing in section 345 of the Local Government Act 1974 applies to the

disposal of land resulting from a stopping of a road under this section.

48 Directions to take or stop taking action

- (1) The Minister may direct any council or council organisation to take or stop taking any action, or to make or not to make a decision.
- (2) Subsection (1) applies (without limitation) to any action or inaction that is required, authorised, or prevented by or under—
 - (a) a resource consent that is current or has expired, whether or not the consent has been or is being exercised; or
 - (b) section 9 or 124 of the Resource Management Act 1991; or
 - (c) an abatement notice or enforcement order; or
 - (d) a rule in a plan that permits an activity; or
 - (e) a designation or heritage order; or
 - (f) a certificate of compliance under that Act; or
 - (g) an existing use protected or allowed under section 10, 10A, or 10B of that Act.
- (3) Despite subsection (1), the Minister must not direct any council to—
 - (a) set a rate under section 23 of the Local Government (Rating) Act 2002; or
 - (b) take any action or make any decision in relation to rates described in a funding impact statement included in an annual plan or a long-term plan under the Local Government Act 2002.
- (4) A council or council organisation must comply with directions given under subsection (1).

51 Requiring structural survey

The chief executive may require any owner, insurer, or mortgagee of a building that he or she considers has or may have experienced structural change in the Canterbury earthquakes to carry out a full structural survey of the building before it is re-occupied for business or accommodation by the owner, a tenant, or any member of the public.

52 Power to direct owner to act for benefit of adjoining or adjacent owners

- (1) This section applies if the chief executive considers that it is desirable that the owners of any 2 or more adjoining or adjacent properties should act for the benefit of each other, whether because it would assist the implementation of a Recovery Plan or because they have sufficiently linked interests in relation to those properties as a result of any of the Canterbury earthquakes.
- (2) The chief executive may direct any of them to act for the benefit of any other adjoining or adjacent owners in the manner specified by the chief executive.

53 Acquiring or disposing of property

- (1) The chief executive may, in the name of the Crown, purchase or otherwise

acquire, hold, sell, exchange, mortgage, lease, and dispose of land and personal property.

- (2) Subsection (3) applies if land acquired by the chief executive is no longer required for that purpose and is available for disposal.
- (3) To avoid doubt, nothing in sections 40 to 42 of the Public Works Act 1981 applies to the disposal of land to which this subsection applies, whether by sale, exchange, or otherwise, except as provided in section 58.
- (4) The Minister may, by notice in the *Gazette*, declare land held under this Act to be set apart for a Government work in terms of the Public Works Act 1981.
- (5) The Minister may, by notice in the *Gazette*, declare land held for a public work in terms of the Public Works Act 1981 to be held under this Act.
- (6) To avoid doubt, any requirements to offer land back under the Public Works Act 1981 continue to apply to any land declared under subsection (5) to be held under this Act.

54 Notice of intention to take land

- (1) The Minister may acquire land compulsorily by causing a notice of intention to take land in the name of the Crown to be published in the *Gazette* and twice publicly notified, which notice must give—
 - (a) a general description of the land required to be taken (including the name of and number in the road or some other readily identifiable description of the place where the land is situated); and
 - (b) a description of the purpose for which the land is to be used.
- (2) The Minister must serve on the owner of, and persons with a registered interest in, the land a notice of the intention to take the land in the form set out in Schedule 1, unless it is impracticable to do so.
- (3) The Minister must lodge a copy of the relevant notice in the *Gazette* under subsection (1) with the Registrar-General of Land, who must register it without fee against the computer register affected.
- (4) Any notice under this section may be withdrawn by the Minister, and, if it is withdrawn, a notice to that effect must be lodged with the Registrar-General of Land, who must register it without fee against the computer register to the land.
- (5) To avoid doubt, there is no right of objection to a notice of intention to take land.
- (6) A notice of intention to take land under this section ceases to have effect on the expiration of 3 years after the date of the publication of the relevant notice in the *Gazette* unless, on or before the expiration of that period,—
 - (a) a Proclamation taking the land has been published in the *Gazette*; or
 - (b) the Minister has, by further notice in writing served on the owner of the land intended to be taken, and persons with a registered interest in the land, confirmed the intention of taking the land.
- (7) If the Minister has confirmed the intention of taking the land, the notice of

intention so confirmed ceases to have effect unless, on or before the expiration of 2 years after the date of that confirmation, a Proclamation taking the land has been published in the *Gazette*.

58 Certain land must be offered back

- (1) This section applies if any residential land in the CBD, or any land in greater Christchurch outside the CBD, is compulsorily acquired under section 55.
- (2) If the chief executive wishes to exercise his or her power under this Act to dispose of land to which this section applies, the chief executive must offer to sell the land by private contract to the person from whom it was acquired or that person's successor—
 - (a) at the current market value of the land as determined by a valuation carried out by a registered valuer; or
 - (b) if the chief executive considers it reasonable to do so, at any lesser price.
- (3) Subsection (2) does not apply if—
 - (a) the chief executive considers that to offer the land back would be impracticable, unreasonable, or unfair; or
 - (b) the land is to be set apart for a Government work under section 53(4).
- (4) Section 40(2A), (4), and (5) of the Public Works Act 1981 applies with all necessary modifications to an offer back under this section.
- (5) If any offer to sell land under subsection (2) has not been accepted within 20 working days of the receipt of the offer, the chief executive may dispose of the land on any terms and conditions that he or she thinks fit.

83 Protection from liability

- (1) Except as otherwise provided in this Act, no action lies against the Crown, or an officer or employee or Minister of the Crown, or against any other person,—
 - (a) to recover any damages or other amount for any loss, damage, or adverse effect that is due directly or indirectly to any action taken under this Act; or
 - (b) to require any work to be carried out or other action to be taken in order to remedy or mitigate any loss, damage, or adverse effect that results directly or indirectly from any action taken under this Act.
- (2) No person who takes any action under this Act is liable under the Resource Management Act 1991 for any fine, costs, or expenses in respect of that action, except as otherwise provided in this Act.
- (3) Subsection (1) applies whether the loss, damage, or adverse effect is caused by any person taking any action or failing to take any action, so long as the act or omission occurred in the exercise or performance, or intended exercise or intended performance, of his or her functions, duties, or powers under this Act.
- (4) No person is exempted from liability under subsection (1) for any act or omission to act that constitutes bad faith or gross negligence on the part of that person.

- (5) If, under this Act, the Minister or the chief executive becomes a party to any agreement or arrangement entered into by a council for the purposes of carrying out demolition or other works, the Minister or chief executive is entitled to the full benefit of any provision in the agreement or arrangement that limits or excludes any liability of the council (such as liability for damage caused by, or for the costs of, demolition work) under the agreement or arrangement.
- (6) If a council assumes any liability of the Minister or chief executive in relation to demolition or other works under this Act, the council is entitled to the full benefit of any provision in an agreement or arrangement that limits or excludes any liability of the Minister or the chief executive (such as liability for damage caused by, or for the costs of, demolition work) under the agreement or arrangement.
- (7) No action lies against a council or council organisation that acts in accordance with a direction under section 48(1) for any loss or damage resulting from acting in accordance with the direction, unless it acts in bad faith or with gross negligence.
- (8) In this section, references to this Act include Orders in Council made under this Act or the Canterbury Earthquake Response and Recovery Act 2010.

APPENDIX 32

PROTOCOL FOR ASSESSING BUILDINGS DAMAGED IN THE EARTHQUAKE

Christchurch City Council – Protocol for assessing buildings damaged in the earthquake

These guidelines set out the Council's approach to the relationship between earthquake-prone buildings, the Council's earthquake-prone buildings policy (EQPB Policy) and the provisions of the Building Act 2004

What is an earthquake-prone building?

A building is earthquake-prone under the Building Act 2004 (BA04) if it will have its ultimate capacity exceeded in a moderate earthquake and would be likely to collapse and cause injury to people or damage to other property. (A "moderate earthquake" is one of the same duration but one-third as strong as the level of earthquake shaking used to design a new building.) In general terms, this is where the structural strength of the building is less than 33% of the building code requirements for a new building.

Note: Buildings used wholly or mainly for residential purposes cannot be EQPBs unless they are 2 or more storeys high and contains 3 or more household units (e.g. high-rise apartment buildings) – all commercial buildings can be EQPBs.

Buildings damaged in the earthquake that have a structural strength (before and after the earthquake) of over 33% of the building code

The Council's EQPB Policy does not apply to these buildings and the Council will deal with any building consent application for repairs to these buildings under section 112 of the Building Act 2004 (if that section applies). That means the structural strength of the building, as a whole, only needs to comply with the building code to the same extent as it did before the earthquake.

Note: Any new building work required as part of the repairs will need to comply fully with the building code. The building, as a whole, may also need to be upgraded in relation to its means of escape from fire and access and facilities for persons with disabilities (if this is a requirement in terms of section 118 of the Building Act 2004).

Buildings damaged in the earthquake that have a structural strength of less than 33% of the building code after the earthquake

Whether or not a building had a structural strength before the earthquake of above or below 33%, if the building's strength is now below 33% of the building code it will be considered by the Council to be an earthquake-prone building based on the definition in the BA04 referred to above.

An application for consent for repairs to a damaged earthquake-prone building provides the Council with the opportunity to address the structural strength of that building at the same time in the context of the EQPB Policy.

The approach in the EQPB policy is for the Council and building owners to work together on solutions for an EQPB, on a case by case basis.

- **How much of the building has been damaged and needs repair.** If the repairs required to the building are not structural, or only involve a small part of the building, and the owner can provide an expert opinion acceptable to the Council as to the structural safety of the building (without strengthening being done at the same time as the repairs, and despite it being earthquake-prone), the Council will grant consent under s112 for the area of repairs, and any other upgrading required under s112. The Council will also consider allowing the owner an extension of time, as provided for in clause 2.3.4 of the EQPB Policy, for the strengthening work to be completed within an appropriate period (being not less than 3 years).

The applicant will have to supply information in terms of these criteria to support the case for the extent of work (including any strengthening) being appropriate.

If enforcement action is necessary – the issue of a section 124 notice

The Council wants damaged earthquake-prone buildings to be strengthened so they are, as a minimum, no longer posing a danger to occupants, other property or the public. That is, the ultimate capacity of the building will not be exceeded in a moderate earthquake and the building will not be likely to collapse and cause injury to people or damage to other property.

The Council cannot require a building owner to strengthen a building under s112 of the BA04, or under the EQPB Policy on its own. The Council can issue a section 124 notice if the building is dangerous, earthquake-prone or insanitary. The work required by a section 124 notice is such work as required to reduce or remove the danger or prevent the building from remaining insanitary. The work required may include the demolition of all or part of a building.

The Council will consider exercising its power to issue a section 124 notice when agreement over the level of strengthening for a building cannot be reached. In any notice the Council will normally require a building owner to strengthen their building to the level considered achievable by the Council that removes the danger posed by the building being earthquake-prone. It will not require demolition of the building unless that appears to be the only practicable option.

If the building owner does not agree with the Council's decision to issue a section 124 notice requiring the owner to strengthen the building the owner can apply for a determination to the Department of Building and Housing.